

# UNIVERSITY OF CALICUT

(Abstract)

B.A. Development Economics and B.A. Foreign Trade Programmes – under Choice based Credit Semester System - Scheme and Syllabus – implemented with effect from 2009 admission onwards approved – Orders issued.

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## **GENERAL AND ACADEMIC BRANCH – I ‘B’ SECTION**

No. GA I/B1/269/2009

Dated, Calicut University. P.O., 26.10.2009

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Read: 1. U.O.GA I/J2/3601/08(Vol.II) dated 19-06-2009.

2. Minutes of the meeting of the Board of Studies in Economics (UG) held on 19-08-2009 (Item No.1 and 2.).

### **ORDER**

The Rules and Regulations governing the UG Curriculam under Choice based Credit Semester System in the Colleges affiliated to the University was implemented with effect from 2009 admission onwards vide paper read first above.

The Board of Studies in Economics (UG) at its meeting held on 19-08-2009 resolved to approve the syllabi of B.A. Development Economics and B.A. Foreign Trade, vide paper read second above.

The Vice Chancellor after having considered the matter has approved the minutes of the meeting of the Board of Studies in Economics (UG) held on 19-08-2009 subject to ratification by the Academic Council.

Orders are therefore, issued implementing the syllabus of B.A. Development Economics programme and B.A. Foreign Trade Programme under Choice based Credit Semester System with effect from 2009 admission onwards subject to ratification by Academic Council.

The Scheme and Syllabus are appended herewith.

Sd/-

To

**DEPUTY REGISTRAR (G & A I)**

The Principal,

**For REGISTRAR**

of Arts & Science Colleges offering B.A.Development Economics and Foreign Trade.

Copy to:

Controller of Examination/Eg Sec/Ex Sec/DR & AR B.A. Branch/  
System Administrtor with a request to upload the same in the University website/GA I F Sec/SF/DF/FC.

**Forwarded/By Order**

**Section Officer**

**REVISED UNDERGRADUATE DEGREE  
CURRICULUM AND SYLLABUS IN DEVELOPMENT  
ECONOMICS (REGULAR)**

**UNIVERSITY OF CALICUT**

**EFFECTIVE FROM 2009 – 2010 ADMISSION**

## **Towards a Revision of Curriculum and Syllabus of Undergraduate DEVELOPMENT ECONOMICS Programme**

Every branch of knowledge is evolving over time. This is the result of man's quest for knowing more about himself and his societal environment. Economics is no exception to this process of evolution. A number of developments in the form of new theories and applications have already taken place in economics during the past few decades with a view to understand the economy, its actors their behavior and the consequent outcomes of their actions.

Generally, curriculum brings out the academic programme's educational philosophy, specific objectives of learning and understanding of a discipline and implementation strategies as well as assessment and evaluation criteria. However, Syllabus traditionally represents the content of a given Course and specifies how this content is graded and sequenced. Syllabus refers to content or subject matter of a given discipline whereas Curriculum refers to the totality of the content to be taught and aims to be realised with in a given academic course period. Thus Curriculum subsumes a Syllabus.

Curriculum and Syllabus of Economics should therefore follow the above line of thinking. Regular updating of both Curriculum and Syllabus in Economics is unavoidable because the subject of Economics has a rapid growth as compared to most of the other social sciences and also being a discipline that touches day-to-day human lives in every society.

To quote UGC:

*“Renewing and updating of the curriculum is the essential ingredient of any vibrant university academic system. There ought to be the dynamic curriculum with necessary additions and changes introduced in it from time to time by the respective university with a prime objective to maintain updated curriculum and also providing therein inputs to take care of fast paced development in the knowledge of the subject concerned. Revising the curriculum should be a continuous process to provide an updated education to the students at large”.*

To put it in a broad sense, higher education especially in the field of social science must aim at:

- To train students to understand the society, economy and the world at large
- To equip them with the right analytical skills to acquire a 'vision'
- To enjoy a life time learning.

It is necessary to repeat that the goal of higher education is two fold: Knowledge Creation and its utilisation through activities that are useful to the learners as well as the society.

Coming to the curriculum of Economics, our objective is to impart

- A knowledge of fundamental concepts and theoretical propositions
- A methodology by which economic ideas are framed, tested and modified
- An understanding of the institutions, social, political and economic. that influence economic issues
- An ability to present one's own analysis of the problems and issues in the language of an 'Economist'

Teaching of Economics lack relevance if they do not help in the understanding of the laws of motion of the economy and society where one lives.

- The idea is to make the student at the undergraduate level understand correctly the basic concepts and terms used in Economics and to give him an exposure to the way economic problems and issues are to be looked at with out any bias.
- For this, what is needed is a set of CORE courses and ELECTIVE courses. The core course may consist of two parts (a) Basic Concepts, terms and theories and (b) Application areas.

- The first will have Papers like MICROECONOMICS, MACROECONOMICS ,MATHEMATICS FOR ECONOMICS. FINANCIAL ECONOMICS, PUBLIC ECONOMICS, ENVIRONMENTAL ECONOMICS etc
- The elective courses will have, , GENDER ECONOMIC, ECONOMICS OF BUSINESS AND FINANCE, HEALTH ECONOMICS, etc to enable the students to get an exposure to the application of what he is going to learn in CORE courses.

ELECTIVE Courses shall be short courses. A few of them are to be framed to suit ECONOMICS students and others specially suited to non-Economics students.

All elective courses should contain substantial active learning component to give depth to the curriculum. This includes writing reports, oral presentations, and research projects. This will reinforce the empirical skills students have acquired in the course on quantitative methods.

Finally, we suggest that students do a final research project that would complete the process of intellectual maturation. It will also provide further insight in the curriculum.

**Suggested Courses:**

We are offering 14 Core courses, Four complementary courses and two open courses with three electives each. The course work/ project work / visit are to be handled by the Economics faculty in each college. All these are presented in Table 1.

Table 1 : Suggested Courses and Their Short Objectives

Course Code	Course Code	Course Objectives
<b>I Semester</b>		
Common Course I	EC1 A01	<i>Detailed syllaby and objectives are to be provided by the University Seperately</i>
Common Course II	EC1 A02	
Common Course III	EC1 A03	
Core Course I	Microeconomics -1 EC1 B01	Teaches the fundamentals of microeconomics required for proper understanding of other courses.
I Complementary I	Agricultural Economics I DEC1 C01	
II Complementary I	Fundamentals of Foreign Trade I DEC1 C02	
<b>II Semester</b>		
Common Course IV	EC2 A04	<i>Detailed syllaby and objectives are to be provided by the University</i>
Common Course V	EC2 A05	
Common Course VI	EC2 A06	
Core Course II	Macroeconomics – 1 EC2 A06	Teaches the fundamentals of macroeconomics required for proper understanding of other courses.
I Complementary II	Agricultural Economics- II DEC2 B02	.
II Complementary II	Fundamentals of Foreign	

	Trade II DEC2 C04	
<b>III Semester</b>		
Common Course VII	EC3 A07	<i>Detailed syllaby and objectives are to be provided by the University</i>
Common Course VIII	EC3 A08	
Core Course III	Quantitative Methods for Economic Analysis –I EC3 B03	Teaches mathematical tools required for the study of undergraduate economics
Core Course III	Micro Economics – II EC3 B04	Develops the tools for further economic analysis.
I Complementary III	Population Studies I DEC3 C05	
II Complementary III	Regional Economics I DEC3 C06	
<b>IV Semester</b>		
Common Course IX	EC4 A09	<i>Detailed syllaby and objectives are to be provided by the University</i>
Common Course X	EC4 A10	
Core Course V	Quantitative Methods for Economic Analysis II EC4 B05	Teaches Statistical tools required for the study of undergraduate economics
Core Course VI	Macroeconomics II EC4 B06	To develop the tools for further economic analysis.
I Complementary IV	Population Studies II DEC4 C07	
II Complementary IV	Regional Economics II DEC4 C08	
<b>V Semester</b>		
Core Course VII	Development Economics DEC5 B07	
Core Course VIII	Mathematical Economics DEC5 B08	
Core Course IX	Environmental Economics DEC5 B09	

Core Course X	Computer Application EC5 B05	
Elective Course (For Economic Students)	Gender Economics EC5 D01	Introduces the fundamental principles of gender awareness
	Health Economics EC5 D02	Teaches the fundamental aspects of Health and its emerging issues.
	Economics of business and Finance EC5 D03	Introduces the students to the basics of business, managerial and financial economics .
Course / Project/Visit	EC5 B15 (Pr.)	Application of what is taught.( Group activity)
<b>VI Semester</b>		
Core Course XI	Basic Econometrics DEC6 B11	Introduces basic econometric that will be applied in subsequent courses.
Core Course XII	Public Finance EC6 B12	Introduces the role of public / governmental activities expenditure in the functioning of an economy.
Core Course XIII	Indian Economy with special reference to Kerala Economy DEC6 B13	
Core Course XIV	Financial Economics DEC6 B14	
Open Course I (For Non-Economic Students)	Basic Principles of Economics EC6 E01	Introduction to the fundamental principles of Economics.
	International trade and Business EC6 E02	Introduction to international trade theories and practices.
	Banking EC6 E03	Introduces the theory and practice of banking
Project/Course/Visit	EC6 B15 (Pr.)	

## **Complementary Courses**

1. Agricultural Economics
2. Fundamentals of Foreign Trade
3. Population Studies
4. Regional Economics
5. Essentials of Economics.
6. Co Operation
7. Banking
8. Mathematical tools for economics

(Plus other complementary courses offered by sister departments)

### **Suggested Contents :**

The contents of each course listed above cover most of the *important and the latest theoretical and empirical developments* in their respective fields.

### **Suggested Reference :**

We propose a list of *books* as the required textbooks for each course. We also provide additional reading list for every course.

### **Suggested Teaching Method :**

The current practice of teaching Economics is to give lectures that dominate theories. This method often gives students a mistaken impression that economics is devoid of any practical and real-life use or applications. So we suggest to incorporate as many *real-life examples* as possible in the process of teaching. Reference books contain plenty of examples from different fields of the subject. One can improve this with the aid of modern communication devices.

### **Suggested Assessment and Evaluation Methods :**

We follow the directions put forward by the University with regard to *assessment and evaluation*. As per these directions, there will be examinations conducted by the University at the *end* of each semester. There will be an internal *assessment* that carries *25 percent of marks*. The internal assessment is further split up as follows. Attendance, (Five marks), two test papers,(Five Marks) seminar and viva voce (Five marks) assignment and Record (Ten Marks). With respect to evaluation, performance of a student is evaluated in terms of *grades*. The University directs to use *direct-grading* with a *5-point scale*.

# **CORE COURSES**

## **Semester I**

### **I. Microeconomics - I**

#### **a. Introduction :**

Education in Economics begins with a study of the most fundamental ideas that govern economic activities. A beginner normally commences the study of these ideas with two courses in the methodology and



principles of economics. The first course covers the simple relations that are concerned with the economic behavior of individual economic agents. This course is called microeconomics I. It will introduce the students to the basic ideas and tools that will be utilized throughout in other courses of the degree programme.

### **b. Objectives :**

This course is intended to provide students a basic idea in microeconomics and its methodology. The main objective of this course is to equip students with the basic idea of economic analysis.

### **c. Learning Outcome :**

With this course, students are expected to learn the simple relationships and ideas in the theory of consumption, production, cost and revenue.

### **d. Syllabus**

#### **Module -1 Introduction to Social Sciences:**

Relevance of Social Sciences in understanding and solving cotemporary problems at regional, national and global levels

#### **Module-II Introduction to Micro Economic Theory**

Micro Economics and its scope. Wants & scarcity, Functions of Economic system, Circular flow of economic activity – price determination and functions of prices-concept of margin, Economic models, Methodology, Value judgement, Positive and normative analysis

#### **Module-III: Basic demand supply analysis**

Market analysis-market demand and market supply-market equilibrium-adjustment to changes in demand and supply / static and dynamic analysis- comparative static analysis, Algebraic explanation to market equilibrium, market demand and elasticity, Types of elasticity-price, income & cross elasticity, measurement of elasticity, MR and price elasticity, Elasticity of supply. Determinants of elasticity, uses of elasticity,

#### **Module IV-Consumer Behaviour and Demand**

Utility Analysis – Total and Marginal Utility – Cardinal & Ordinal Utility. Indifference Curves- Characteristics, MRS-Special Types of Indifference Curves, Consumer's Income-Price Constraints- Budget Line-Changes in Income and Prices and Budget line, Consumer's choice, Utility Maximisation, The Changes in demand and Engel's Curve, Changes in Price Substitution Effect and Income Effect / Hicksian and Slutsky's Analysis Normal, Inferior and Giffen Goods, (Application of Indifference Curve Analysis.) Revealed preference theory. Strong Ordering and Weak Ordering. Fundamental Theorem of Consumption Theory, Derivation of Demand Curve under Cardinal, Ordinal and Revealed Preference Theory –.

#### **Module V-Production/ Cost and Revenue**

Production function –AP and MP Production with one variable input, Production with two variable inputs, Isoquants – MRTS-elasticity of factor substitution. Isocline - Ridge Line, Returns to Scale, . Cobb Douglas Production function. Cost of Production, Nature of Production, Costs, Short run and Long run Costs, Isocost lines. Least cost input Combination, Expansion path, Derivation of LAC and LMC, Introduction to Modern Cost Curves. Concepts of revenue – AR, MR, TR; Break even point.

**Reference**

- 1 Dominick Salvatore : Microeconomics : Theory and Applications',;Oxford University press, Newdelhi.
- 2 A. Koutsoyannis : Modern Microeconomics, - Mac millon
- 3 Hunt, Elgin, F (2008) Social Science and its methods in Social Science : An Introduction to the Study of Society : Allen and Bacon
- 4 Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education

**Additional Readings**

1. Dominick Salvatore 'Microeconomic Theory' Schaum's Outline series : Tata Magrahill.
2. Lipsey R. and A Chrystal – Economics (11<sup>th</sup> Edition) Oxford University Press New Delhi.

Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

## **Semester II :**

### **Macroeconomics -I**

#### **a. Introduction:**

The study of economics begins with the fundamental ideas of economic actions. The second fundamental course i.e. macroeconomics. I offer the students a view on the economy as a whole. This course will introduce the students to the basic ideas and tools that will be utilized throughout in the other courses of the degree programme.

#### **b. Objectives :**

This course is intended to provide students with the basic ideas in classical and Keynesian macroeconomics.

#### **c. Learning Outcome :**

With this course, students are expected to learn the relationships and ideas in the measurement of national income, the theory of income determination, fiscal and monetary policies, the government and its role in the functioning of the economy, etc.

#### **d. Syllabus**

##### **Module I: Why study Economics**

A Methodological framework of studying Economics – Its relevance and importance

##### **Module 2: Macro Economic Concepts & Models**

Micro Economics and Macro Economics - National Income concepts Potential GNP - Actual GNP - GDP Gap – Green GNP

Macro - Economic Models – Exogenous, Endogenous, ex-ante, ex-post, Nominal, real, dependent and independent variables – Identities and Equations.

##### **Module 3: Classical Macro Economic Model**

Say's Law of Markets – Wage – Price Flexibility – Classical Model of Output and Employment – Quantity Theory of Money – Fisher's Equation of Exchange – Cash Balance Approach – Neutrality of Money – Money illusion – Pigou effect – Real Balance effect – Classical dichotomy – Concept of full employment – voluntary unemployment.

##### **Module 4: Keynesian Macro Economic Model**

Consumption function – Psychological Law of Consumption – Determinants of Consumption – APC and MPC – APS and MPS – Paradox of thrift – Income, Consumption and Saving relationship – Investment function – determinants of investment — MEC, MEI and the role of Expectations – Principle of Effective Demand – Underemployment equilibrium – Wage. Price rigidity – Determination of Income in two and three sectors (using Keynesian Cross diagrams and algebra)

## **Module 5: Elementary IS LM Model (Two Sector only)**

Definition & Derivation of IS and LM curves – General Equilibrium using IS & LM curves.

### **References:**

1. Edward Shapiro – ‘Macro economics’ Oxford University press.
2. Gregory Mankiw – ‘Macro economics’ – 6<sup>th</sup> Edn. Tata McGraw Hill.
3. Richard T. Frogmen – ‘Macro economics’, Pearson education.
5. Eugene Diutio – Macro economic Theory, Shaum’s Outline series. Tata McGraw Hill
6. Errol D’Souza – ‘Macro Economics’ – Pearson Education 2008.
7. Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education
- 8

### **Additional Readings**

9. Dominick Salvatore : ‘Microeconomic Theory’ Schaum’s Outline series : Tata Magrahill.
  10. Lipsey R. and A Chrytal – Economics (11<sup>th</sup> Edition) Oxford University Press Newdelhi.
- Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

## **Semester III : Quantitative Methods for Economic Analysis - 1**

### **a. Introduction:**

Economics is increasingly becoming quantitative in nature. Students of economics today need a variety of quantitative skills. Mathematical skills have also become an essential element in the toolkit for higher education.

### **b. Objectives**

The students is to develop skills in mathematical techniques that are required for a meaningful study of both theoretical and applied economics.

### **c. Learning Outcome**

This course in quantitative methods will cover the essential topics in mathematics. Needed for Economic analysis.

## **d. Syllabus**

### **Module I- Algebra**

Exponents and Logarithms - Arithmetic and Geometric Progression- Equations-Types and solutions of Linear, Quadratic and Simultaneous Equations up to three unknowns. Set Theory- Types and Set Operations, Domain and Range of Set.

### **Module II- Basic Matrix Algebra**

Matrices-Types, Matrix manipulations and their rules, Order of Matrix, Transpose of Matrix- Determinants up to order  $3 \times 3$ - Properties and Value of determinant, Minor and Cofactor, Inverse and Cramer's Rule.

### **Module III Functions and Graphs**

Types of Functions- Rectangular Co-ordinate System and graphs of functions - Slope and Intercept - Equations of straight lines.

### **Module IV –Differential Calculus**

Limits and Continuity- Differentiation- Rules, Derivative of Functions except Trigonometric Function, Higher Order Derivatives, Partial and Total Derivatives in two variable functions- Maxima and Minima of Functions- Curvature Properties-Convexity and Concavity.

### **Module V- Financial Mathematics**

Growth rate: Simple and Compound, Depreciation- Time Value of Money- Future and Present Value, Compounding and Discounting, Net Present Value and Internal Rate of Return. **(Mathematical proof of Theorems is not necessary.)**

### **Reference:**

1. Sydsaeter K and P. Hammond, Essential Mathematics for Economic Analysis, Financial Times- Prentice Hall, London, 2002.
2. Holden. K and A.W. Pearson, Introductory Mathematics for Economics and Business, Macmillan, 2002.
3. Barauh.S, Basic Mathematics and Its Application in Economics, Macmillan, 2002.
4. Allen R.G.D, Mathematical Analysis for Economist, Macmillan, 1986.
5. Dowling E.T, Mathematical Methods for Business and Economics, Schaums Outline Series, McGraw Hill, 1993.

# Semester III

## Microeconomics-II

### a. Introduction :

This part of the syllabus focuses on the particulars of the market- It attempts to explain how a particular market functions;

### b.Objectives :

It is designed to introduce undergraduate students to the fundamental concepts of the markets and its structures. The objective of the course is to apply principles of microeconomic analysis to the day-to-day decision-making of firms and market .

### c. Learning Outcome:

It is expected to develop skills in students in understanding the functioning of various type of market. This crucial skill will certainly help students in understanding and solving economic problems of the society, make policy .

## d. Syllabus

### Module 1: Market Structure – Perfect Competition:

Price determination in the market period – Short period and long period / Equilibrium of the firm – Efficiency implications of the firm.

### Module 2: Imperfect Competition – Monopoly:

Price and output under monopoly – sources of monopoly – Types of monopoly – market demand curve under monopoly – short run and long run equilibrium of the monopolist – (MC - MR approach) – social cost of monopoly –Degrees of price discrimination – Equilibrium of discriminating monopolist – dumping – regulation of monopoly – A comparison of perfect competition and monopoly.

### Module 3: Monopolistic Competition:

Monopolistic competition price and output determination – short run and long run -Product differentiation – selling cost – non-price competition – Chamberline's group equilibrium and the concept of excess capacity.

### Module 4: Oligopoly:

Features and types of oligopoly – Kinked demand curve theory.

### Module 5: : Factor pricing

Input pricing and employment under perfect competition – profit maximization and optimal employment – demand curve of a firm for an input – market demand curve for an input and its elasticity – Supply curve of an input – pricing and employment of an input.

### Recommended Readings:

Dominick Salvatore : Microeconomics : Theory and Applications',:Oxford University press, Newdelhi.

A. Koutsoyannis : Modern Microeconomics,

### Additional Readings

Dominick Salvatore : 'Microeconomic Theory' Schaum's Outline series : Tata Magrahill.

Lipsey R. and A Chrytal – Economics (11<sup>th</sup> Edition) Oxford University Press Newdelhi.

Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

## **Semester IV**

# **Quantitative Methods for Economic Analysis – II**

### **a. Introduction**

Students of economics today need a variety of statistical skills to collect and analyse and interpret empirical data. They also require these skills for advanced studies in empirical-oriented fields. Statistical skills have become an essential toolkit for most branches of economics.

### **b. Objectives**

This course is intended to provide students an introduction to statistical methods and tools that are used in the study of economics at undergraduate level. The aim of this course is to develop skill in statistical techniques that are required for a meaningful study of applied economics and for carrying out empirical research.

### **c. Learning Outcome**

Students are expected to acquire statistical skills that are necessary for further study in most branches of economics.

### **d. Syllabus**

#### **Module I. Meaning of Statistics and Description of Data**

Definition, Scope and Limitations of Statistics-Frequency distribution- Representation of data by Frequency polygon, Ogives and Pie Diagram. Measures of Central tendency- Arithmetic Mean, Median, Mode, Geometric Mean and Harmonic Mean-Weighted averages-Positional values-Quartiles, Deciles and Percentiles-Business Averages-Quadratic Mean and Progressive Average-Measures of Dispersion: Absolute and Relative measures of Range, Quartile Deviation, Mean Deviation and Standard Deviation- Lorenz Curve- Gini Coefficient- Skewness and Kurtosis.

#### **Module II. Correlation and Regression Analysis**

Correlation-Meaning, Types and Degrees of Correlation- Methods of Measuring Correlation- Graphical Methods: Scatter Diagram and Correlation Graph; Algebraic Methods: Karl Pearson's Coefficient of Correlation and Rank Correlation Coefficient - Properties and Interpretation of Correlation Coefficient-Simple linear regression-Meaning, Principle of Ordinary Least Squares and Regression Lines.

#### **Module III. Index Numbers and Time Series Analysis**

Index Numbers: Meaning and Uses- Unweighted and Weighted Index Numbers: Laspeyre's, Paasche's, Fisher's, Dorbish-Bowley, Marshall-Edgeworth and Kelley's Methods- Tests of Index Numbers: Time Reversal and Factor Reversal tests -Base Shifting, Splicing and Deflating- Special Purpose Indices-Wholesale Price Index, Consumer Price Index and Stock Price Indices: BSE-SENSEX and NSE-NIFTY. Time Series Analysis-Components of Time Series, Measurement of Trend by Moving Average and the Method of Least Squares.

#### **Module IV. Vital Statistics**

Vital Statistics: Meaning and Uses- Fertility Rates: Crude Birth Rate, General Fertility Rate,

Specific Fertility Rate, Gross Reproduction Rate and Net Reproduction Rate - Mortality Rates: Crude Death Rate, Specific Death Rate, Standardised Death Rate, Infant Mortality Rate and Maternal Mortality Rate-Sex Ratio and Couple Protection Ratio.

- **Proof of Theorems is not necessary ( Applicable to all modules)**

**Reference:**

1. Lind D.A., W.G. Marchal and S.A. Wathen., Statistical Techniques in Business and Economics, Tata Mc Graw Hill, New Delhi.
2. Gupta S. P., Statistical Methods, Sultan Chand and Sons, New Delhi.

## **Semester IV**

### **Macroeconomics-II**

#### **a. Introduction:**

Policy makers all over the world use macroeconomic theories and related empirical results to frame policies. Similarly, business firms, use these theories and results to formulate their strategies. A sound understanding of macroeconomic principles and their applications is essential for students of Economics.

#### **b. Objectives:**

The objective is to familiarise the students in the application of principles of macroeconomic analysis to the day-to-day decision-making in the aggregate economy.

#### **c. Learning Outcome :**

This course is expected to develop skill in economic reasoning, This vital skill is expected to help them in understanding and solving aggregate economic problems.

#### **d. Syllabus**

##### **Module 1: Theories of Money**

Nature and Functions of Money - Types of Money: Near money, inside money and outside money.

1. Theories of Demand for money - Defining demand for money - Classical theory of demand for money - Friedman's re-statement of Quantity Theory of Money - Liquidity Preference theory and Keynesian Liquidity Trap.
2. Theories of Supply of money: - Defining supply of money - Measuring supply of money - High powered money & money multiplier

##### **Module 2: Theories of Inflation and Unemployment**

Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Meaning and types of unemployment. - Cost of unemployment and Oakun's Law - Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

##### **Module 3: Macro economic Instability and Policy:**



Business Cycle: meaning, types and phases. - Monetary, Fiscal, and income policy - Meaning and Instruments.

#### **Module 4: Open Economy Macro Economics:**

- a. Foreign trade multiplier - Four sector macro economic model Using IS-LM-Balance of Payment Schedule

#### **Reference:**

1. Edward Shapiro – ‘Macro economic Analysis’ Oxford University press.
2. Gregory Mankiw – ‘Macro economics’ – 6<sup>th</sup> Edn. Tata McGraw Hill.
3. Richard T. Frogmen – ‘Macro economics’, Pearson education.
4. Eugene Diutio – Macro economic Theory, Shaum’s Outline series. Tata McGraw Hill
5. Errol D’Souza – ‘Macro Economics’ – Pearson Education 2008.

<b>Course Title</b>	<b>: DEVELOPMENT ECONOMICS</b>
<b>Course Category</b>	<b>: CORE COURSE -7</b>
<b>Credits</b>	<b>: 4</b>
<b>Lecture Hours Per Week</b>	<b>: 5</b>
<b>Semester</b>	<b>: V</b>

### **Module 1 Introduction**

Economic Growth and Development – Defining Development and underdevelopment - Measurement of development: Per Capita income (PCI) Physical Quality of Life Index (PQLI), Human Development Index (HDI), Gender Related Development Index (GDI), Gender Empowerment Measure (GEM), Human Poverty Index(HPI), Sen’s Capability Approach, Inequality and Kuznet’s inverted ‘U’

### **Module II Problems of Development**

Structure and Characteristics of developing nations - Obstacles to growth and development – Vicious Circle of Poverty, Unemployment, inequality, gender, caste and community, problems related to technology, manpower and resources, problems related to capital formation, foreign capital and foreign aid - problems related to different sectors and their growth.

### **Module III Theories of development**

Classical theories- Adam smith - Ricardo- Malthus, Marx’s theory of economic development; Schumpeter’s theory, Harrod Domar Growth model – Approaches to development- low income equilibrium trap - critical minimum effort-thesis - balanced and unbalanced growth, , big push theory, Rostow’s stages of Economic Growth , unlimited supply of labour,

### **Module IV Development Planning : Indian Experience**

-Genesis of planning in India- Planning commission in India ; role and functions- goals and achievements of five year plans in India, Bombay Plan, Gandhian Plan- overview of current five year Plan.

### **References**

1. Mier, Gerald . M : Leading issues in Eco-development , OUP, Delhi

2. Todaro Michael P : Economic development in the third world, orient Longman, Hyderabad
3. Ghatak , Subrata : Introduction to Developemtn Economics
4. Arther Lewis, W : The Principle of economic Planning, George Allen and Unwin (India) Pvt Ltd
5. Sukumoy Chakravarthy: Development Planning: the Indian Experience'- OUP
6. Misra & Puri : Economics of Development & Planning(Theory and Practice
7. Thirlwal AP : Growth and Development, Palgrave

<b>Course Title</b>	<b>: MATHEMATICAL ECONOMICS</b>
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<b>Course Category</b>	<b>: CORE COURSE -8</b>
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<b>Credits</b>	<b>: 4</b>
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<b>Lecture Hours Per Week</b>	<b>: 5</b>
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<b>Semester</b>	<b>: V</b>
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### **Module1. Introduction**

Mathematical Economics: Meaning and Importance –Mathematical Representations of Economic Models-Economic Functions: Demand Functions, Supply function, Utility function, Consumption function, Production function, Cost function, Revenue function, profit function, Saving function and investment function

### **Module 11. Marginal Concepts**

Marginal Utility, Marginal Propensity to consume, Marginal propensity to save, Marginal product, Marginal cost, marginal revenue, marginal rate of substitution, Marginal rate of technical substitution

Relationship between Average revenue and Marginal revenue- Relationship between Average cost and Marginal cost – Elasticity: Demand elasticity , Supply Elasticity, Price Elasticity, Income Elasticity, Cross Elasticity – Engel function

### **Module III Constraint Optimisation and Production function**

Constraint Optimization Methods: Substitution and Lagrange Methods – Economic applications, Utility maximization, Cost minimization, Profit maximization. Production Functions: Linear, Homogeneous, and Fixed Production Functions – Cobb Douglas production function

### **Module 1V Linear Programming**

Concept – Formulation of LPP – Solution of LPP, Graphical methods, Simplex method – Duality – economic interpretation of dual – application and limitation of Linear Programming

### **Module V Market Equilibrium**

Market Equilibrium: Perfect Competition – Monopoly –Discriminating Monopoly

References:

1. Chiang A.C and K. Wainwright, Fundamental methods of Mathematical Economics,4<sup>th</sup> Edition, McGraw-Hill, New York, 2005
2. Dowling E.T, Introduction to Mathematical Economics, 2<sup>nd</sup> edition, Schaum Series, McGraw-Hill, New York, 2003
3. R.G.D Allen, Mathematical Economics
4. Mehta and Madnani – Mathematics for Economics

5. Joshi and Agarwal \_ Mathematics for Economics
6. Taro Yamanae – Mathematics for Economics

<b>Course Title</b>	<b>: ENVIRONMENTAL ECONOMICS</b>
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<b>Course Category</b>	<b>: CORE COURSE -9</b>
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<b>Credits</b>	<b>: 4</b>
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<b>Lecture Hours Per Week</b>	<b>: 5</b>
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<b>Semester</b>	<b>: V</b>
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### **Module I Introduction to Environmental Economics and Basic Concepts**

Concept of Environmental Economics- origin- development- Environmental Economics and Ecological Economics – Environmental Economics and Natural Resource Economics- **Basic Concepts** – Biodiversity :- genetic, species, and ecosystem - Habitat , Property rights, tragedy of commons, Renewable non renewable resources, Maximum Sustainable Yield(MSY), air pollution, water pollution, solid waste management and hazardous substances, Green National Accounting

### **Module II Environmental Valuation**

Valuation of Environmental Benefits and Costs – problems involved- Direct and Indirect methods of environmental valuation- cost-benefit analysis- net present value and discounting rate

### **Module III Trade and Environment**

Does Trade Harm the Environment? Global Pollutants and international Environmental Agreements – The Global environment Issues- green house gases and Global warming-Climate Change and Global agreements - Kyoto Protocol, Montreal protocol – Environmental Kuznets Curve

## **Module IV Environment and Development**

Development, poverty and Environment- Population and environment – Sustainable development and Environmental Justice

Field Visit: One-day field visit to be done by the students to a place where environmental related issues could be highlighted, and the students are requested to prepare a note after the visit.

Reference:

1. Kolstad, Charles D (2003), 'Environmental economics' OUP
2. Bhattacharya, R N (2001) 'Environmental Economics, An Indian Perspective'
3. Tietenberg, Tom "Environmental and Natural Resource Economics', 6<sup>th</sup> ed., Pearson
4. Singh, Katar and Shishodia, Anil (2007) " Environmental Economics; Theory and Applications,' Sage
5. Thomas, Janet M and Callan , Scott J (2007) ' Enviornmental economics' Thomson South – western India ed

## **Course Title : COMPUTER APPLICATION IN ECONOMICS**

<b>Course Category</b>	<b>: CORE COURSE -10</b>
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<b>Credits</b>	<b>: 4</b>
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<b>Lecture Hours Per Week</b>	<b>: 5</b>
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<b>Semester</b>	<b>: V</b>
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## Semester V

### a. Introduction :

Information technology has revolutionised the way we live and work. Economics is relatively more quantitative in nature than many other social sciences. Thus computer application has assumed utmost significance in Economics. Many of the large models in macroeconomics such as input-output models, national income estimation models, etc., require applications of computer programmes. Similarly, Computer application will facilitate in-depth studies in other branches of Economics.

### b. Objectives :

This course will provide the students with a skill that is .that is useful both in job market and in academia.

### c. Learning Outcome:

It is expected to provide the students with those computing skills that are, necessary for success. This course will arm the students with the knowledge of fundamentals of computers

## d. Syllabus

### Module 1. Philosophical foundations of Computing

Software - Philosophy of open source software – social computing – Operating systems

### Module 2. Creation and Manipulation of Documents

Word processor basics. New blank document and toolbars. Manipulation of the first document. Editing the document. Designing and redesigning the document. Working with graphs, pictures and video in documents. Records and mail merge.

### Module 3: Data Analysis

Spreadsheet basics. Excel environment. Insertion of rows and columns. Entering data. Excel toolbars. Creation and manipulation of charts and graphs. Manipulation of data. Mathematical and statistical calculations. Excel functions. Changing the layout. Applications in economics using simple examples.

### Module 4: Database Management

Introduction to database. Defining database. Meaning and functions of database management system. Creation and manipulation of tables. Updating tables. Working with forms. Handling queries. Generating reports. Applications in economics using simple examples.

### Module 5: Preparation of Presentations

Introduction to PowerPoint. Starting PowerPoint. AutoContent Wizard. Working with texts, graphs, pictures, audio and video in slides. Design templates. Adding transition effects to slides. Adding animation in slides. Previewing the contents.

### Module 6: The Internet and E-Commerce

Meaning and scope of the Internet. Creating, sending and receiving e-mails. Browsing the WWW. Downloading from and uploading to the Internet. Online shopping and e-business/e-commerce., E-market. (Concepts)

Note: 25 marks for this paper are from internal examination. Internal marks should be

awarded based on practical examinations. Expected practical sessions for teaching: 20 hours.

### Reference

1. Vikas Guptha – Comdex Computer Course Kit – Dream Teck Press
2. Sharma D - Foundations of IT- Excel books.

<b>Course Title</b>	<b>: BASIC ECONOMETRICS</b>
<b>Course Category</b>	<b>: CORE COURSE -11</b>
<b>Credits</b>	<b>: 4</b>
<b>Lecture Hours Per Week</b>	<b>: 5</b>
<b>Semester</b>	<b>: VI</b>

## MODULE 1 Introduction

Definition and scope of econometrics. The Methodology of econometrics – Specification and estimation of an econometric model. - Types of data : Time series, Cross section and panel data - Basic concepts of estimation: Desirable properties of estimators

### MODULE II Simple Regression Analysis and Theoretical Distribution

Statistical vs deterministic relationships: Correlation and regression: Coefficient of determination: Estimation of an equation – Testing of hypothesis – Standard errors: tests based on Z, t and  $\chi^2$  (Chi Square statistics)

### MODULE III Estimation Theory

Ordinary least squares (OLS) method – assumptions: Gauss-Markov theorem – Testing of regression coefficient. Problems in OLS estimation. Problems of heteroscedasticity: Auto correlation(first order), Multicollinearity – test and remedies

### MODULE IV Application of Econometric Methods

Estimation of demand and supply functions – Production and cost functions – Consumption function and investment function

References:

1. Damodar N Gujarati, Basic Econometrics, McGraw-Hill, New York
2. Koutsoyiannis; Econometrics
3. Intrilligator, M D (1980) Econometric Models and Techniques, Prentice Hall India

<b>Course Title</b>	<b>: Public Finance</b>
<b>Course Category</b>	<b>: CORE COURSE -12</b>
<b>Credits</b>	<b>: 4</b>
<b>Lecture Hours Per Week</b>	<b>: 5</b>
<b>Semester</b>	<b>: VI</b>

#### **a. Introduction :**

Public finance or fiscal economics deals with the fisc of the country. It is related to decision making in the public sector or finance of the governmental agencies. A training in public finance will help students in decision making and in higher studies.

## b. Objectives :

The basic aim of this course is to introduce students to the application of the techniques, methods and principles of Economics to decision making in public finance.

## c. Learning Outcome :

The students are expected to learn how the principles of economics can be applied to sound decision making in public finance. They are expected to learn all the important economic issues that government agents face.

## d. Syllabus

<b>Module I</b>	<b>Meaning and Scope of Public finance</b>
	Public finance – Meaning and Scope – Public and Private Finance – Principles of Maximum Social Advantage – Public Goods, Private Goods, Mixed Goods and Merit Goods (Concept only)
<b>Module II</b>	<b>Public Expenditure</b>
	Meaning and Importance – Reasons for the Growth of Public Expenditure – Wagner’s Hypothesis, Peacock - Wiseman Hypothesis, Canon’s of Public Expenditure – Effects of Public Expenditure.
<b>Module III</b>	<b>Public Revenue</b>
	Sources of public revenue Taxes -Classification of Taxes - Canons of Taxation, Principles of Taxation. Ability, Benefit and cost of service-Impact, Incidence and shifting of Tax Burden — Effects of Taxation – Major Taxes in India. Value Added Tax in India , The concept of goods and service tax (GST)
<b>Module IV</b>	<b>Public Debt and Budget</b>
	Public Debt : Meaning, Types of Public Debt, Debt Redemption.
	<b>Budget</b>
	Meaning, Types of Budget: Revenue and Capital Budget, Revenue Expenditure and capital expenditure, Revenue Deficit, Fiscal Deficit, Primary Deficit - Budget Deficit – Fiscal Policy – Contra Cyclical Fiscal Policy – Deficit financing - Preparation of Budget in India – (Introduce the latest Central and State Budgets to the students.)
<b>Module V</b>	<b>Federal Finance</b>
	Meaning – Principles of Federalism – Finance Commission (Finance Commission Report – Latest) - Importance of Local finance in India

## References

- (1) R.A Musgrave and PB Musgrave – Public finance – Tata Macgrail
- (2) Govinda Rao and Singh - Political Economy of Federalism in India – Oxford.

- (3) Govinda Rao – State Finances in India Issues and Challenges ( Article) EPW – 03-08-2002.
- (4) Shankar Acharya – Thirty Years of Tax Reforms in India (Article) EPW – 14-05-1995.
- (5) Bhatia HL – Public Finance – Vikas Publishing.
- (6) Lekhy Public Finance and Public Economics – Kalyani publications,

Additional Reading

3. Economic Review – Govt of Kerala
4. Economic survey Govt of India

<p><b>Course Title : INDIAN ECONOMY WITH SPECIAL REFERENCE TO KERALA ECONOMY</b></p>
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<p><b>Course Category : CORE COURSE -13</b>  <b>Credits : 4</b>  <b>Lecture Hours Per Week : 5</b>  <b>Semester : VI</b></p>
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**Module I: Resource Base and Structure of Indian Economy**

Economic Geography of India – Basic features – Human Resource: Demographic features, extent of unemployment, poverty and inequality: Recent trends and conceptual issues. HDI of India – trend in National and Per capita Income – Sectoral Composition (output and employment) – Primary, Secondary and Tertiary sectors

**Module II :Agriculture**

Trends and Composition of Output of major crops – Trends in Investment, Credit and Agricultural Subsidy – New Agricultural Strategy of 1960s(Green Revolution) – Food security and PDS in India – Evaluating Land Reforms in India – New Agricultural Policy (in the context of liberalization)

**Module III: Industry and Service**

Industrial Structure in India: Traditional, SSI, Village, Cottage and Modern industries – Industrial Policy Resolution in India till 1991- new Industrial policy and its impacts – Components of Service Sector – Role of Service Sector in India

**Module IV: External Sector**

Trends and composition of India's Imports – trends and direction of India's Exports – EXIM policy of India in relation to trade liberalization and its impacts – FDI, FII and MNCs in India – External Borrowing and BOP problem in India – International Institutions (IMF, WB, ADB, WTO) and the Indian Economy

**Module V : Kerala Economy**

**(only a broad outline is expected)**

Unique features - Structural composition – Primary, secondary and tertiary sectors – Development Experience – Demographic transition in Kerala – Impact of Emigration and Migration - tourism and development

References:

1. Uma Kapila, (2008), Indian economy: performance and Policies', 8<sup>th</sup> Ed. Academic Fountation, New Delhi
2. Prakash B A (Ed.) (2009) 'Indian economy Since 1991: Economic reforms and performance, sage publications New Delhi
3. Bhalla G S (2008) 'Indian Agriculture since Independence(2008), NBT, New Delhi
4. I C Dhingra: Indian Economy, Environment and Policy – Sultan Chand and Sons
5. Poverty, Unemployment and development Policy: Special issues with reference to Kerala, Centre for Development Studies, UNDP
6. V. K. Ramachandran on Keralas Development Acheivements. In Sen & Dreeze – India Selected Regional Perspectives - Oxford

7. Various Issues of – Economic Review, Census Report, Statistics for Planning, Economic Survey
8. Rajan K (2009)(ed) – Kerala Economy: Trends during the post Reform period – Serial Publications

<b>Course Title</b>	<b>: FINANCIAL ECONOMICS</b>
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<b>Course Category</b>	<b>: CORE COURSE -14</b>
<b>Credits</b>	<b>: 4</b>
<b>Lecture Hours Per Week</b>	<b>: 5</b>
<b>Semester</b>	<b>: VI</b>

## **Module I**

Financial system: Role and Functions of the financial system in an economy – Financial markets and instruments – financial instruments – structure of Indian Financial system

### **Module II**

Money Market –Features and instruments – Commercial Banking System in India – Banking sector reforms, call money market, CBLO market.

### **Module III**

Role of Capital Market in an economy – Capital market in India – evolution and growth -Primary, Secondary ,Capital Market reforms in India - Stock Exchanges: functions – Structure of stock exchanges- BSE, NSE

### **Module , IV**

Non-banking financial Institutions in India; nature , role and functions – Classification of NBFCs – mutual funds , insurance Companies, Venture capital funds, merchant banks, Asset Reconstruction Companies

### **Module V**

Regulatory institutions – RBI – role and functions . the Securities and Exchange Board of India – objectives – function \_ SEBI guidelines for primary and secondary market – Role of IRDA and PFRDA

### **References**

1. Bhole L.M; Financial Institutions and markets, Tata McGraw Hill
2. Kohn , Meir: Financial Institutions and markets, Tata McGraw Hill
3. Desai, Vasantha: Indian Financial System, Himalaya Publishing House
4. Pathak , V.Bharathi: Indian Financial System, Pearson education
5. Khan M Y: Indian Financial System, Tata McGraw Hill



(Semester V)

## **Elective Courses To Economics Students**

### **I. Gender Economics**

#### **Module I - Introduction**

Definition of Gender- Gender and sex - Gender Equity and Gender Equality-Gender Development- Human Development Index and Gender Development index-Gender Disparity Index-Gender Empowerment Measure- Gender Status in India and Kerala -Sex Ratio-Concept of Missing Women.

#### **Module II - Gender Discrimination in India and Kerala**

Gender Discrimination in Labour Force Participation- Occupational Segregation and Wage Differences- Gender Discrimination in Education, Health, Employment, Political Participation and Decision Making.

#### **Module III - Gender Budgeting**

Gender awareness in planning- Invisibility of Women's Work in Budgeting- How to Adjust our Budgeting Policies to Reduce Gender Disparities.

#### **Module IV - Gender Issues in Contemporary World**

Women and Globalisation- Social and Economic Empowerment of Women- Technology and Gender:, for example Internet and Blogs.

Reference:

1. Gita Sen and Canen Crown; Gender and Class in Development Experience
2. Leela Gulati and Ramalingam; Kerala Women: A profile
3. Neera Desai and Maithreyi Krishnaraj; Health-A Gender Issue in India
4. Lourdes Beneria and Savithri Biswanath; Gender and Development: Theoretical, Empirical and practical Approaches
5. Lekha Chakraborti; Invisibility of Women's Work in Budgeting.
6. National Institute of public Finance and policy (NIPFP); Gender Budgeting in India, [www.nipfp.org.in](http://www.nipfp.org.in).
7. UNDP - Human Development Reports

### **II. Health Economics**

#### **Module 1: Introduction to Health Economics:**

Defining Health Economics. Importance of Health Economics – Essential Features. Concepts: Health, Health Care, Birth rate, Fertility rate, Death rate, IMR, CMR, MMR, Morbidity rate (Acute and Chronic), Disability Adjusted Life Year (DALY), Quality

Adjusted Life Year (QUALY), Sex Ratio.

**Module 2: Demand and Supply of Health Care:**

Demand for Health Care – Case of Health Care Accessibility – Socio Economic and Cultural Features, Determining Health Status – Supply of Health, Health Care Delivery System – Pricing of Health Care.

**Module 3: Health Financing & Policy::**

Health Expenditure – Public & Private – Direct and Indirect – Health Insurance – Concept of User Cost – Health Policy of WHO, National Health Policy – NRHM, Health as a State Subject.

**Module 4: Health Statistics in India and Kerala:**

Infrastructure and Health Status of India & Kerala using informations from NSSO, NFHS, CRS and SRS.

**References :**

- 1) V. Ramankutty – A Premier of Health System Economics (2007) Allied publications New Delhi
2. Kannan KP,et.al..... (1991) Health Development in Rural Kerala – (KSSP, Thiruvanthapuram)..
3. Henderson JW - Health Economics and Policy – Thomson learning.

### **III. Economics of Business and Finance**

**Module 1: Introduction:**

asic concept of Business Economics, Financial Economics and Managerial Economics.

**Module II: nvestments –**

meaning,ature and importance. Considerations in Investment decision and investment process – Investment alternatives – Capital Budgeting – Introduction and methods

**Module III** Organising Financial asset various financial assets and securities.

Introduction to Balance Sheets – Evaluation of Balance Sheets – Break even Analysis – Linear and non-linear – time value money

Future Value and Compounding – present value of discounting.

**Module IV** Introduction to Demand Estimation, Demand forecasting – Production Function and its importance – Cost estimation, Cost functions – Economics of Scale, Cost cuts and estimation Cartal ,price leadership, price discrimination, pricing strategies.

**References:**

1. Kettell, Brian – Financial Economics – Making sense of Market information, Financial Time, Prentice Hall, London – 2001.
2. Nellis J., and D. Parker – Principles of Business Economics 2<sup>nd</sup> Edition – Pearson Education, London.
3. Griffith A. and S. Wall = Economics for Business and Management – Pearson Education, London (2004)
4. Keat P.G. and P.K.Y. Young – Managerial Economics – Tools for Today’s Decision matters – Pearson Education New Delhi – 2006.

# Open Course for Non-Economic Students

## I Basic principles of Economics

### Module 1: Economic Issues, Concepts and the Methods of Economics

Issues and concepts – Why study economics? Meaning of microeconomics and nature of modern economy. Resource scarcity, choice, opportunity cost and the production-possibility curves, Central Problems of an economy.

### Module 2: Demand, Supply, Price Determination, Elasticities, and Consumer Behavior

Demand – nature, demand function, demand schedule, demand curve, shifts in demand curve, Supply –supply function, supply curve, shifts in supply curve, market equilibrium. Price determination and imbalances. Elasticity of demand – price elasticity (meaning and measurement). Elasticity of supply – meaning and measurement. Consumer behavior – utility, marginal and total utility, diminishing marginal utility, and utility maximizing rule.

### Module 3: Theory of Production, Costs and Market Structures

Production and costs – production and production function, costs and profits, profit-maximizing output, law of diminishing returns, short-run cost curves and their relationships, profit maximization, and cost minimization. Market structure – Features of perfect competition and monopoly – oligopoly – monopolistic competition.

### Module 4: Macro economics and the Measurement of National Income:

Macroeconomics – meaning and major macroeconomic issues. Gross Domestic Product (GDP) – meaning and types, and income and expenditure measures of GDP, and interpretation of measures. Circular flow of income and expenditure.

### Module 5: Income Determination, Inflation, Unemployment, and Fiscal and Monetary Policies

Classical theory – postulates, Say's law, and classical theory, consumption function, saving function, GDP, changes in GDP, income or investment multiplier. Inflation – meaning, measures, types, effects and theories. Fiscal and monetary policies: meaning, instruments, and effects on distribution, growth, stability and production. Financial crisis.

### Reference

5. Anintya Sen - Micro Economics – Oxford
6. Saumyan Sikdar – Principals of Macro Economics. - Oxford

## II. International Trade and Finance

### Module 1: Introduction to International Trade

Importance of International Trade - Inter-dependence among countries - The concept of 'Trade as an engine of Growth'

### Module 2: Basic Theories of International Trade

Absolute advantage - Comparative advantage – Heckscher Ohlin arguments for and against free trade

### **Module 3: Foreign Exchange and Balance of Payment**

Components of foreign exchange - Exchange rate determination (mention floating and fixed exchange rate; specify mint parity, PPP and supply and demand) - Devaluation, revaluation, appreciation and depreciation of currency. – BOP and BOT - Disequilibrium in BOP - Full and partial Convertibility

### **Module 4: International Finance**

IMF, World Bank, ADB, WTO, International Financial Flow: FDI, FII, Portfolio.

#### **References:**

1. Dominick Salvatore 'International Economics', McMillan.
2. Bo Soderstien and Geoffrey Reed - 'International Economics'.
3. Francis Cherunilam - 'International Economics'.
4. Mannur, H.G. - 'International Economics'.
5. R.B.I. Bulletin, Various issues.

## **III. Banking**

### **Module 1:**

Banks, Evolution and Economic Importance, Growth of Banking in India.

### **Module 2:**

Commercial Banking - Branch Banking Vs Unit Banking, Group Banking, Chain Banking, Mixed Banking, Clearance Banks, Balance sheet, Rules of Management of funds, Assets, Liabilities, Financial Intermediaries, Bank Failures, Deposit Insurances, Merchant Banking - Nationalization of Banks in India : An overview of Changes after Nationalisation.

### **Module 3:**

Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary sources, Loans, Practices in Lending, Credit creation, Limitations.

### **Module 4:**

Accounts: Joint accounts, Partnership, Company guarantees, Individual Surety, Joint and Several Guarantee, Security, Exchange Securities, Life Policies, Payment and Collections of Cheques, Dishonouring, Negotiability, Crossing and Account payee.

### **Module 5:**

Central Banking: Evolution Functions- Reserve Bank of India. - Development Banking in India . emerging trends in capital market.

#### **Reference :**

1. R.S. Sayers, Modern Banking. Macmillan
2. M.D. Decock, Central Banking.
3. S.K. Basu, Banking in India.
4. Milnes Holdern, Studies in Practical Banking.
5. I.C. Dhingra, Indian Economy. - Sulthan chand and sons

## **Complementary Courses**

# **Course Title : AGRICULTURAL ECONOMICS**

**1**

**Course Category : COMPLEMENTARY COURSE -1**  
**Credits : 2**  
**Lecture Hours Per Week : 3**  
**Semester :1**

## **Module I Role of Agriculture in a growing Economy**

Agriculture in a growing economy : Product contribution, Market contribution , Factor contribution, Foreign exchange contribution - Interdependence between agriculture and Industry –

Role of Agriculture in India - Challenges before Indian Agriculture

## **Module II Economics of Agricultural Production**

Agriculture firm as a production unit – Production Function - Traditional Production Function: Law of variable proportions and Returns to Scale – Modern production Function: Isoquant Approach - cost concepts and concept of farm budgeting

## **Module III Agriculture Marketing , Credit and Agricultural Prices**

Marketed and marketable surplus – Role of marketable surplus in economic Development – Factors affecting marketable surplus – Demand and Supply of Agricultural Products – regulated markets – cooperative markets - Credit : Non-institutional Sources - Institutional sources - Fluctuation in Agricultural Prices – stabilization and support prices

### **References:**

1. Karl Eicher and Lawrence W . H. : Agriculture in Economic Development
2. Uma, Kapila(2008) : Indian economy
3. G. S Bhalla : Indian agriculture since independence (2008), NBT, New Delhi
4. Mamoria C. B: Agricultural problems of India
5. Ishwar C Dhingra: The Indian Economy
6. Sadhu and Singh: fundamentals of Agricultural Economics
7. R. L Cohen : Economics of Agriculture

Harold J Halcrow : Economics of Agriculture

# **Course Title : FUNDAMENTALS OF FOREIGN TRADE 1**

**Course Category : COMPLEMENTARY COURSE -1I**

**Credits : 2**

**Lecture Hours Per Week : 3**

**Semester :1**

## **Module I Introduction**

Nature and importance of foreign trade – features of foreign trade – Difference between internal and international trade – Advantages and disadvantages of Foreign Trade – Foreign trade and economic development

## **Module II Theories of Foreign Trade**

Concept of Offer Curve - Classical theory - Adam Smith , Ricardo, Modern Theory – Heckscher – Ohlin theorem , Leontiff paradox ,Lerner's factor price equalization, terms of trade and gains from trade, Immiserisation

## **Module III Foreign Exchange**

Defining foreign exchange and exchange rate – Components of foreign exchange reserve – different systems of exchange rate determination: gold standard (Mint Parity), PPP, Floating exchange rate , Fixed and Flexible exchange rate -Demand and Supply of foreign exchange - Devaluation, revaluation , depreciation and appreciation

References:

1. Salvatore , Dominick, 'International Economics' Wiley India , New Delhi
2. C. P Kindle Berger "International Economics'
3. Bo Soderstein and Geoffrey Reed 'International economics' Macmilon
4. Harry G Johnson 'International Trade and Economic Growth
5. Francis Cherunilam –' International Economics
6. Errol D'Souza,'Macro economics,' Person education 2008 (for BOP in India)
7. Misra and Puri; Indian Economy, Himalaya Publications
8. RBI bulletin, Various issues

**Semester – I**

# **Essentials of Economics – Micro**

## **Module I: Introduction to Economics**

What Economics is about? – Importance of the study of economics, relation with other social sciences (History, Political Science, Law, Psychology, Sociology). Basic Problems. Micro versus Macro

## **Module II: Theory of Demand**

Utility, utility function, marginal utility, law of diminishing marginal utility, demand, law of demand. Elasticity of demand and its types.

## **Module III: Theory of Supply**

Cost, cost function, opportunity cost, variable cost, fixed cost, total cost, marginal cost, average cost, supply, supply function, supply curve, Elasticity of supply and its types. Equilibrium price, market and its classification

## **Module IV: Theory of Production**

Production function, types of production function (short run and long run),

**Reference**

1. Dominick Salvatore 'Microeconomic Theory', Schuam's Outline Series

<b>Course Title</b>	<b>: AGRICULTURAL ECONOMICS 11</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -1</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:II</b>

**Module I Institutional and technological Changes in  
Indian agriculture**

Land Reforms ; New Agricultural Strategy - Green Revolution - Features of new Strategy, impact of new agricultural strategy-achievement and weaknesses of new strategy - Institutional change - land reforms- objective - Progress - Impact of land reforms - cause of poor performance of land reforms

**Module II Indian Agriculture under Five Year Plans**

Progress of Agriculture since 1951 – Role of agriculture in our Five Year Plans – Objectives of Planning for Agricultural sector – pattern of investment in agricultural sector – New Economic Policy and Agriculture – WTO and Indian Agriculture - Agriculture and Current Five Year Plan, Recent trends and latest agriculture scenario

**Module I1I Role and range of Agriculture Marketing , Credit ,Insurance Schemes and Agricultural Prices in India**

Credit : Non-institutional Sources - Institutional sources; Commercial Banks, Co-operative Banks, Regional Rural Banks and Co-operative Banks – NABARD and Agricultural development

Insurance Schemes : National agricultural insurance scheme(NAIS) , Krishi Sharamik Suraksha Yojana, Farm Income Insurance Scheme, Varsha Bima (Rainfall Insurance scheme) - Agricultural Price Policy – Objective of price policy – Instruments of price Policy: Minimum support prices, Procurement prices, issue prices, Buffer stock operations – Food security and public distribution system – Structure, Role and functioning of PDS, Features, Objectives and Problems of Public Distribution System

References:

1. Karl Eicher and Lawrence W . H. : Agriculture in Economic Development
2. Uma, Kapila(2008) : Indian economy
3. G. S Bhalla : Indian agriculture since independence (2008), NBT, New Delhi
4. Mamoria C. B: Agricultural problems of India
5. Ishwar C Dhingra: The Indian Economy
6. Sadhu and Singh: fundamentals of Agricultural Economics
7. R. L Cohen : Economics of Agriculture
8. Harold J Halcrow : Economics of Agriculture

<b>Course Title</b>	<b>: FUNDAMENTALS OF FOREIGN TRADE 11</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -II</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:II</b>

**Module I Balance of Payment**

Defining Balance of Trade and Balance of Payment – Equilibrium and disequilibrium in BOP – Measures to correct BOP disequilibrium – BOP in India

**Module I India's Foreign Trade**

Trends and composition of India's Imports – trends and direction of India's Exports – EXIM policy of India in relation to trade liberalization and its impacts –New Foreign Trade Policy -**Policy Packages Since July 1991**: Foreign trade, exchange rate and foreign capital- Devaluation of rupee and exchange rate reforms: LERMS, UERS – concepts of convertible currency; current account convertibility and capital account convertibility – concepts of Foreign Direct investment, Foreign Institutional Investment and Foreign Portfolio Investment

**Module III International Monetary Institutions**

Brettonwood Conference: IMF, World Bank - Asian Development Bank, IDA – their structure and functions - Economic integration EU,NAFTA, ASEAN, SAARC, WTO

References:

1. Salvatore , Dominick, 'International Economics' Wiley India , New Delhi
2. C. P Kindle Berger "International Economics"
3. Bo Soderstein and Geoffrey Reed 'International economics' Macmillan
4. Harry G Johnson 'International Trade and Economic Growth
5. Francis Cherunilam –' International Economics
6. Errol D'Souza,'Macro economics,' Person education 2008 (for BOP in India)
7. Misra and Puri; Indian Economy, Himalaya Publications
8. RBI bulletin, Various issues

**Semester – II**

**Essentials of Economics – Macro**



**Module I: National Income Concepts and Meaning**

GDP and GNP, NDP and NNP. GDP at factor cost and market price, GNP at market price and factor cost, NDP at market price and factor cost, NNP at market price and factor cost. Personal Income, disposable income, per-capita income. Importance of the estimation of national income, difficulties in estimation of national income.

**Module II: Major Classical Postulates**

Say's Law of Market, Full employment, wage-price flexibility, laissez-faire

**Module III: Major Keynesian Concepts**

Effective demand, consumption, savings, under-employment equilibrium, wage-price rigidity

**Reference**

1. Diwedi DN 'Macroeconomics Theory and Policy' Tata Magragel

<b>Course Title</b>	<b>: POPULATION STUDIES 1</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -1</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:III</b>

MODULE I Introduction

Concept of Population, Demography , Human capital, Human resource , Human resource development, Labour , Population Data : Census and vital statistics - Population study : Meaning , nature , scope , objectives and importance – Relation of population studies with other sciences

**MODULE II Theories of population**

Malthusian Theory of Population – Optimum Theory of Population – Theory of demographic transition different stages – components of Population Growth and their interdependence

**MODULE III Measures and Quality of Population**

The concept of Quality of Population – factors affecting Quality of population – Measures of Crude Birth Rate – General fertility Rate \_ Total Fertility Rate – Reproduction Rate and Net Reproduction Rate- Crude Death Rate – Infant Mortality - Life expectancy

References:

1. Agarwal S N (1972) , India,s Population Problem, Tata McGraw-Hill, Co  
Bombay

2. Bose A (1996) India's Basic Demographic statistics , B A Publishing Corporation, New Delhi
3. Bouge D J (1971) Principle of Demography, John Wiley, New York
4. Chenery H and T n Srinivasan (eds)(1989), hand Book of Development Economics, Vol.1&2 Elsevier, Amsterdam,et.
5. Choubey p K (2000), population Policy in India, Kanishka Publications New Delhi
6. Coale A J and L M Hoover (1958) Population Growth and Economic Development in Low income countries: A case study of India's Prospects Princeton university Press, Princeton
7. Gulati S C (1998) Fertility in India: An Econometric study of metropolis of sage, New Delhi
8. Srinivasan K (1998)Basin Demographic Techniques and application Sage, New Delhi
9. Srinivasan k and a Shariff (1998), India; Towards Population and Demographic Goals, OUP
10. John R Population: An introduction to concepts and issues 8<sup>th</sup> edition

<b>course Title</b>	<b>: REGIONAL ECONOMICS 1</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -2</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:III</b>

### **MODULE I Introduction**

Definition of Regional Economics and region – Different types of regions – regional income, Problems of estimation; Indicators of regional development

### **MODULE II Regional growth and Techniques of regional analysis**

Spatial Price Theory- Price equilibrium in geographically separated and interlinked markets; Spatial Macro economics- Inter Regional Income Models- Cumulative Causation Models- Center Periphery Model; Growth Pole Analysis, Convergence and Divergence of disparities in per capita regional income, Techniques of Regional Analysis: Regional and Inter Regional input-output analysis; Attraction model; Gravity model; shift-share Analysis; Impact studies

#### Reference

1. Hoover E M , An Introduction to Regional Economics, Alfred p knopf, New York (1974)
2. Chand, M and V K Puri; Regional Planning in India, Allied Publishers, New Delhi
3. Isard W, Methods of Regional Analysis:MIT Press Cambridge, Mass (1960)
4. Nair, K R G regional experience in a Developing Economy, Wiley-Eastern, New Delhi (1982)
5. Richardson H W, Regional Economics, Weidenfield and Nicholson, London (1969)
6. Brahmananda, P R, and V R Pachmikh (Eds) Development experience in the Indian Economy, Inter state perspectives, Bookwell, Delhi(2001)

## **Semester – III**

# **Essentials of Economics – Money, Banking, Finance and Trade**

**Module I: Money**

Definitions and functions of money, demand for and supply of money, Fischer's quantity theory of money, inflation and deflation

**Module II: Banking**

Role and functions of commercial banks and central bank, monetary policy and its instruments, credit instruments (cheque, draft etc)

**Module III: Public Finance**

Public revenue and its sources, public expenditure, public debt, deficit financing, fiscal policy, budget, finance commission.

**Module IV: Trade**

Internal and External Trade, Why international trade?, balance of trade and balance of payment, foreign exchange rate, devaluation, revaluation, depreciation, appreciation.

**Reference**

1. Diwedi DN 'Macroeconomics Theory and Policy' Tata Magragel
2. Salvator D and EA Diulio – Principals of Economics Schuam's Outline Series
3. Salvator D – International Economics Schuam's Outline Series

<b>Course Title</b>	<b>: POPULATION STUDIES 1I</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -1</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:1V</b>

**MODULE IV Population in India**

India's Population: Size and Growth trends – Ageing – gender issues – Women empowerment – population explosion - Age composition of population and its Demographic Dividend -Growth and Distribution of Rural Urban population - Population Trends in Recent Years in India- National Population Policy – Family Planning Strategies and their outcomes- policies related to Health, Nutrition , Education , Training

**MODULE V Trends in World Population**

Population Trends in Recent Years - Population Explosion – Growth of World Population- developed and Developing Nations – Migration : Motivating factors, internal and international migration - Pattern of Age and Sex structure in Developed and Developing Nations – Determinants of Age and sex structure – Age Pyramids and projections

**MODULE VI Population and Economic Development**

Views of Population and Economic Development – Demographic Growth and socio – economic development - Impact of population growth on long term development, food production , natural resources and the environment

References:

1. Agarwal S N (1972) , India,s Population Problem, Tata McGraw-Hill, Co Bombay
2. Bose A (1996) India’s Basic Demographic statistics , B A Publishing Corporation, New Delhi
3. Bouge D J (1971) Principle of Demography, John Wiley, New York
4. Chenery H and T n Srinivasan (eds)(1989), hand Book of Development Economics, Vol.1&2 Elsevier, Amsterdam,et.
5. Choubey p K (2000), population Policy in India, Kanishka Publications New Delhi
6. Coale A J and L M Hoover (1958) Population Growth and Economic Development in Low income countries: A case study of India’s Prospects Princeton university Press, Princeton
7. Gulati S C (1998) Fertility in India: An Econometric study of metropolis of sage, New Delhi
8. Srinivasan K (1998)Basin Demographic Techniques and application Sage, New Delhi
9. Srinivasan k and a Shariff (1998), India; Towards Population and Demographic Goals, OUP

Misra and PURI (2008), I

<b>Course Title</b>	<b>: REGIONAL ECONOMICS 1I</b>
<b>Course Category</b>	<b>: COMPLEMENTARY COURSE -2</b>
<b>Credits</b>	<b>: 2</b>
<b>Lecture Hours Per Week</b>	<b>: 3</b>
<b>Semester</b>	<b>:1V</b>

**MODULE I Regional Growth**

Concept of Regional Growth and local economic development – Approaches to Local Economic Development – Theory of regional Income and employment determination

**MODULE II: Regional Policy**

People Prosperity Vs Place prosperity; Formulation of inter regional objectives; Consistency between national and regional objectives; Alternative regional policy measures; Historical evidence  
Inter- Regional differences in India’s development

**MODULE III Regional Economic Structure in India**

- Regional economic structure : Economic base of regions and municipalities , assessment of economic performance of territorial system - Regional

administration: Local Self Government , 3 tier structure – Regional Planning – Regional finance as a part of Public Finance -Regional Budget.

#### Reference

1. Hoover E M , An Introduction to Regional Economics, Alfred p knopf, New York (1974)
2. Chand, M and V K Puri; Regional Planning in India, Allied Publishers, New Delhi
3. Isard W, Methods of Regional Analysis: MIT Press Cambridge, Mass (1960)
4. Nair, K R G regional experience in a Developing Economy, Wiley-Eastern, New Delhi (1982)
5. Richardson H W, Regional Economics, Weidenfield and Nicholson, London (1969)
6. Brahmananda, P R, and V R Pachmikh (Eds) Development experience in the Indian Economy, Inter state perspectives, Bookwell, Delhi(2001)

## **Semester – IV**

### **Essentials of Economics – Indian Economy**

#### **Module I: India as a Developing Economy**

Major Issues: poverty, unemployment and inequality - causes and remedies

#### **Module II: Major Sectors of Indian Economy**

Importance, contribution and problems of agricultural sector, green revolution, land reforms, Industry: importance, contribution and problems. Services: contribution to the national economy. Impact of economic reforms on major sectors.

#### **Module III: Planning**

Economic planning and its objectives; five year planning in India – achievements and failures

#### **Module IV: Kerala Economy**

Unique features, sectoral contribution, land reforms, decentralized planning, people's planning, achievements and challenges in Health and Educational Sectors, Role of Migration and remittances, tourism and development

#### **Reference**

1. Uma Kapila – (Ed) Indian Economy Since Independence – Academic Foundation – New Delhi
2. Kerala Padhanam - KSSP Kozhikode

## **II. CO-OPERATION**

### **Semester I**

#### **Co-operation I**

#### **Module 1: Principles and Problems of Co-operation:**

Meaning and Significance of Co-operation; Co-operation and other business enterprises; Problems of Co-operation, Role of Co-operatives in a dynamic economy.

## **Module 2: Practice of Co-operation in Foreign Countries:**

Co-operative Movement in Germany, England, Denmark, Ireland, Japan, Italy, France, International Co-operative Alliance.

## **Semester II**

### **Co-operation 2**

#### **Module 1: Practice of Co-operation in India:**

Origin and Development of Co-operative Movements, Co-operative Legislations and Administrations. Recent Trends.

#### **Module 2: Co-operative Banking:**

Principles and Policy, Rural Primary Agricultural Credit Societies, Central Co-operative Banks, Banking Unions, State Co-operative Banks, Land Development Banks, Institutions in Aid Co-operative Banks.

## **Semester III**

### **Co-operation 3**

#### **Module 1: Agricultural Co-operatives:**

Co-operative production, Co-operative Vs Collective Farming, Co-operative Supply (Service Co-operatives), Co-operative Marketing, Co-operative Processing, Co-operative Storage and Warehousing.

#### **Module 2: Non-Agricultural Co-operatives:**

Consumers' Co-operatives, Co-operative Housing, Urban Co-operative Credit Societies, Industrial Co-operatives, Workers' Co-operative, Dairy Co-operatives.

## **Semester- IV**

### **Co-operation 4**

#### **Module 1: Human Resource Development in Co-operatives:**

Nature and Significance of Human Resources Development in Co-operatives, Co-operative Education and Training.

#### **Module 2: Role of Co-operatives in a Liberalised Financial situation.**

Analysing Vaidyanathan Committee Report – History & Role of Co-operative Movement in Kerala - Co-operatives and SHGs – Kudumbasree in Kerala, co operatives and de centralisation

#### **Reference :**

1. T.N. Hajila, Principles, Problems and Practices of Co-operation (Shivalal Agarwala & Co., Agra).
2. E.S. Bogardus, Principles of Co-operation.

3. K.R. Kulkarni, Theory & Practice of Co-operation in India and Abroad.
4. G. Druhain, The Co-operative Society as a Form of Enterprise.
5. H. Calvert, Law & Principles of Co-operation.
6. C.R. Ray, Co-operation at Home & Abroad.
7. R. Philips, Economic Nature of Co-operative Association.

### **III. BANKING**

#### **Semester I**

##### **Banking 1**

###### **Module 1:**

Banks, Evolution and Economic Importance, Functions, Growth of Banking in India.

###### **Module 2:**

Commercial Banking, Branch Banking Vs Unit Banking, Group Banking, Chain Banking, Mixed Banking, Clearance Banks, Balance sheet, Rules of Management of funds, Assets, Liabilities, Financial Intermediaries, Bank Failures, Deposit Insurances, Merchant Banking, Nationalisation of Banks in India : An overview of Changes after Nationalisation.

#### **Semestr II**

##### **Banking 2**

###### **Module 1:**

Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary Resources, Loans, Practices in Lending, Credit Circulation, Limitations.

###### **Module 2:**

Accounts: Joint accounts, Partnership, Company guarantees, Individual Surety, Joint and Several Guarantee, Security, Exchange Securities, Life Policies, Payment and Collections of Cheques, Dishonouring, Negotiability, Crossing and Account payee.

#### **Semester III**

##### **Banking 3**

###### **Module 1:**

Central Banking: Evaluation Functions, Rules of note issue system in India, Bankers' Bank, Reserve Functions, Statutory Minimum, Banker to Government, Custodian Notions, Reserve, Credit Control, Objectives, Methods, Limitations, Lender of the last resort, Bank Rate, Open market operations, Exchange control, Reserve Bank.

###### **Module 2:**

Development Banks in India : IFCI, SFCS, IDBI, NIDC, NSIC, SIDBI: Capital market in India, Emerging trends, Mutual Funds. New Generation Banks.

#### **Semester IV**

##### **Banking 4**

###### **Module 1:**

Agricultural Banking, Land Development Banks, Co-operative Banks, Regional Rural Banks, NABARD.

###### **Module 2:**

**Suggested Readings:**

6. R.S. Sayers, Modern Banking. – Mac millon
7. M.D. Decock, Central Banking.
8. S.K. Basu, Banking in India.
9. Milnes Holdern, Studies in Practical Banking.
10. I.C. Dhingra, Indian Economy. Sulthan Chand and sons.

## **IV. Mathematical Tools for Economics**

### **Semester I**

#### **Mathematical Tools for Economics 1**

##### **Chapter 1 : Theory of Sets**

1.1 Kinds of sets, 1.2 Operations of sets, 1.3 Venn Diagrams, 1.4 Cartesian Products, 1.5 Relations – Types of Relations, 1.6 Functions, 1.7 Total and partial ordering.\

##### **Chapter 2 : Fundamental of Linear Algebra - Matrices**

- 1.1 The Role of Linear Algebra, 2.2 Definitions and terms, 2.3 Addition and Subtraction of Matrices, 2.4 Scalar Multiplication, 2.5 Vector Multiplication, 2.6 Multiplication of Matrices, 2.7 Commutative, Associative and Distributive Laws in Algebra. 2.8 Identity and Null Matrices 2.9 Matrix Expression of a Set of Linear Equations. 2.10 Row Operations, 2.11 Augmented Matrix, 2.12 Gaussian Method of Solving Linear Equations.

#### **Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

#### **Additional Readings**

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note: This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level.

### **Semester 2**

#### **Mathematical Tools for Economics 2**

##### ***Chapter 1 : Matrix Inversion***

1.1 Determinants and Nonsingularity, 1.2 Determinants, 1.3 Properties of a Determinant, 1.4 Minors and Cofactors, 1.5 Cofactor and Adjoint Matrices, 1.6 Inverse Matrices 1.7 Solving Linear Equations with the Inverse, 1.8 Cramer's Rule for Matrix Solutions, 1.9 The Gaussian Method of Inverting a Matrix.

##### **Chapter 2 : Special Determinants and Matrices in Economics**

- 2.1 The Jacobian, 2.2 The Hessian, 2.3 The Discriminant, 2.4 Higher-Order Hessians, 2.5 The Bordered Hessian for Constrained Optimization 2.6 Derivation of a Marshallian Demand Function 2.7 Application in Input-output Analysis.



### **Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

### **Additional Readings**

- 1 Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)
- 2 Taroyamane, Mathematics for Economists (Prentice Hall)

Note : This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level.

### **Semester 3**

#### **Mathematical Tools for Economics 3**

##### **Chapter 1: Basic Mathematical Concepts**

- 1.1 Exponents, 1.2 Polynomials, 1.3 Factoring, 1.4 Equations : Linear and Quadratic, 1.5 Completing the Square, 1.6 Simultaneous Equations, 1.7 Functions, 1.8 Graphs, Slopes, and Intercepts, 1.9 Graphs of Nonlinear Function

##### **Chapter 2 : Economic Applications of Graphs and Equations**

- 2.1 Isocost Lines, 2.2 Supply and Demand Analysis, 2.3 Production – Possibility Frontiers

##### **Chapter 3 : The Derivative And The Rules of Differentiation**

- 3.1 Limits, 3.2 Continuity, 3.3 The Slope of a Curvilinear Function, 3.4 The Derivative, 3.5 Differentiability and Continuity 3.6 Derivative Notation 3.7 Rules of Differentiation 3.8 Higher-Order Derivatives 3.9 Implicit Differentiation.

*Uses in Mathematics and Economics:* 3.10 Increasing and Decreasing Functions, 3.11 Concavity and Convexity, 3.12 Relative Extreme, 3.13 Inflection Points, 3.14 Curve Sketching, 3.15 Optimization of Functions.

### **Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

### **Additional Readings**

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note : 1. This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level. 2. Differentiation of Trigonometric functions, logarithmic functions etc are not to be included.

### **Semester 4**

#### **Mathematical Tools for Economics 4**

##### **Chapter 1 : Calculus and Multivariable Functions**

- 1.1 Functions of Several Variables and Partial Derivatives, 1.2 Rules of Partial Differentiation, 1.3 Second-Order Partial Derivatives, 1.4 Optimization of Multivariable Functions, 1.5 Constrained Optimization with Lagrange Multipliers, 1.6 Significance of the Lagrange Multiplier, 1.7 Differentials, 1.8 Concept of Total and Partial Differentials, 1.9 Concept of Total Derivatives, 1.10 Implicit and Inverse Function Rules, 1.11 Application of Calculus of Multivariable Functions in Economics.

##### **Chapter 2 : Integral Calculus : The Indefinite Integral**

- 1.1 Integration, 2.2 Rules of Integration, 2.3 Initial Conditions and Boundary Conditions, 2.4 Integration by Substitution, 2.5 Integration by Parts, 2.6 Economic Applications.

### Chapter 3 : Integral Calculus : The Definite Integral

3. Area under a Curve, 3.2 The Definite Integral, 3.3 The Fundamental Theorem of Calculus, 3.4 Properties of Definite Integrals 3.5 Area between curves

### Chapter 4 : Introduction to Differential Equations and Difference Equations

- 1.1 Definitions and Concepts of Differential Equations, 4.2 General Formula for First-Order Linear Differential Equations, 4.3 Definition and Concepts of Difference Equations, 4.4 General Formula for First – Order Linear Difference Equations.

#### Basic Reading

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

#### Additional Readings

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note : 1. This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level. 2. Differentiation / Integration of Trigonometric functions, logarithmic functions etc are not to be included.

#### Economics -Course -Credit Semester ( C C S) system

Semester	Course title		Hrs./week	Credit
I	Common course 1	English	4	3
	Common course 2	English	5	3
	Common course 3	Second language	4	4
	Core course 1	Micro Economics-I	6	4
	Complementary I	Sub 1Agriculture Economics I	3	2
	Complementary 1	Sub 2 Fundamentals of foreign Trade I	3	2
II	Common course 4	English	5	4
	Common course 5	English	4	4
	Common Course 6	English	4	4
	Core Course 2	Macro Economics-I	6	4
	Complementary 2	Sub 1Agriculture Economics II	3	2
	Complementary 2	Sub 2 Fundamentals of foreign Trade II	3	2
III	Common course 7	Second language	5	4
	Common course 8	Second language	5	4
	Core Course 3	Quantitative Methods for Economic Analysis -I	5	4
	Core Course 4	Micro Economics- I	4	4
	Complementary 3	Sub1 Population Studies I	3	2
	Complementary 3	Sub2 Regional EconomicsI	3	2
IV	Common course 9	English	5	4
	Common Course 10	Second language	5	4
	Core Course 5	Quantitative Methods for Economic Analysis -2	5	4

	Core Course 6	Macro Economics- II	4	4
	Complementary 4	Sub1 Population Studies II	3	2
	Complementary 4	Sub2 Regional Economics II	3	2
V	Core Course 7	Development Economics	5	4
	Core Course 8	Mathematical Economics	5	4
	Core Course 9	Environmental Economics	5	4
	Core Course 10	Computer Application	5	4
	Elective course (For Economics students)	Gender Economics/ Health Economics/ Economics of business and finance	3	2
	Course work/project work/ visit	Starts the project	2	-
	VI	Core Course 11	Basic Econometrics	5
Core Course 12		Public finance	5	4
Core Course 13		India's economy with special reference to Kerala Economy	5	4
Core Course 14		Financial Economics	5	4
Open course 2 (For non economics students)		Basic Principles of Economics/ Financial Business/ Banking	3	2
Course work/project work/ visit		Complete the projects	2	4

# REVISED UNDERGRADUATE DEGREE CURRICULUM AND SYLLABUS IN ECONOMICS WITH FOREIGN TRADE. (REGULAR)

UNIVERSITY OF CALICUT

EFFECTIVE FROM 2009 – 2010 ADMISSION

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## Towards a Revision of Curriculum and Syllabus of Undergraduate ECONOMICS WITH FOREIGN TRADE Programme

Every branch of knowledge is evolving over time. This is the result of man's quest for knowing more about himself and his societal environment. Economics is no exception to this process of evolution. A number of developments in the form of new theories and applications have already

taken place in economics during the past few decades with a view to understand the economy, its

actors their behavior and the consequent outcomes of their actions.

Generally, curriculum brings out the academic programme's educational philosophy, specific objectives of learning and understanding of a discipline and implementation strategies as well as

assessment and evaluation criteria. However, Syllabus traditionally represents the content of a given Course and specifies how this content is graded and sequenced. Syllabus refers to content or

subject matter of a given discipline whereas Curriculum refers to the totality of the content to be

taught and aims to be realised with in a given academic course period. Thus Curriculum subsumes

a Syllabus.

Curriculum and Syllabus of Economics should therefore follow the above line of thinking.

Regular

updating of both Curriculum and Syllabus in Economics is unavoidable because the subject of Economics has a rapid growth as compared to most of the other social sciences and also being a

discipline that touches day-to-day human lives in every society.

To quote UGC:

*"Renewing and updating of the curriculum is the essential ingredient of any vibrant university academic system. There ought to be the dynamic curriculum with necessary additions and changes*

*introduced in it from time to time by the respective university with a prime objective to maintain updated curriculum and also providing therein inputs to take care of fast paced development in the*

*knowledge of the subject concerned. Revising the curriculum should be a continuous process to*

*provide an updated education to the students at large".*

To put it in a broad sense, higher education especially in the field of social science must aim at:

- To train students to understand the society, economy and the world at large
- To equip them with the right analytical skills to acquire a 'vision'
- To enjoy a life time learning.

It is necessary to repeat that the goal of higher education is two fold: Knowledge Creation and its

utilisation through activities that are useful to the learners as well as the society.

Coming to the curriculum of Economics, our objective is to impart

- A knowledge of fundamental concepts and theoretical propositions
- A methodology by which economic ideas are framed, tested and modified
- An understanding of the institutions, social, political and economic. that influence economic issues
- An ability to present one's own analysis of the problems and issues in the language of an 'Economist'

Teaching of Economics lack relevance if they do not help in the understanding of the laws of motion of the economy and society where one lives.

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- The idea is to make the student at the undergraduate level understand correctly the basic concepts and terms used in Economics and to give him an exposure to the way economic problems and issues are to be looked at with out any bias.
  - For this, what is needed is a set of CORE courses and ELECTIVE courses. The core course may consist of two parts (a) Basic Concepts, terms and theories and (b) Application areas.
  - The first will have Papers like MICROECONOMICS, MACROECONOMICS ,MATHEMATICS FOR ECONOMICS. POLITICAL ECONOMY OF DEVELOPMENT with special reference to INDIA and KERALA etc.
  - The elective courses will have, FINANCIAL ECONOMICS, PUBLIC ECONOMICS, INTERNATIONAL ECONOMICS, ENVIRONMENTAL ECONOMICS, HEALTH ECONOMICS, etc etc to enable the students to get an exposure to the application of what he is going to learn in CORE courses.
- ELECTIVE Courses shall be short courses. A few of them are to be framed to suit ECONOMICS students and others specially suited to non-Economics students.

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All elective courses should contain substantial active learning component to give depth to the curriculum. This includes writing reports, oral presentations, and research projects. This will reinforce the empirical skills students have acquired in the course on quantitative methods. Finally, we suggest that students do a final research project that would complete the process of intellectual maturation It will also provide further insight in the curriculum.

#### **Suggested Courses:**

We are offering 14 Core courses, Four complementary courses and two open courses with three electives each. The course work/ project work / visit are to be handled by the Economics faculty in each college. All these are presented in Table 1.

Table 1 : Suggested Courses and Their Short Objectives

#### **Course Code Course Code Course Objectives**

##### **I Semester**

Common Course I EC1 A01

*Detailed syllaby and objectives are to be provided by the University Seperately*

Common Course II EC1 A02

Common Course III EC1 A03

Core Course I

Microeconomics -1

EC1 B01

Teaches the fundamentals of microeconomics required for proper understanding of other courses.

I Complementary Banking

II Complementary Co-operation EC1 C02

##### **II Semester**

Common Course IV EC2 A04

*Detailed syllaby and objectives are to be provided by the University*

Common Course V EC2 A05

Common Course VI EC2 A06

Core Course II

Macroeconomics – 1

EC2 A06

Teaches the fundamentals of macroeconomics required for proper understanding of other courses.

I Complementary Banking EC2 B02

II Complementary Co-operation EC2 C04

##### **III Semester**

Common Course VII EC3 A07  
*Detailed syllaby and objectives are to be provided by the University*

Common Course VIII EC3 A08

Core Course III

Quantitative Methods for  
Economic Analysis –I

EC3 B03

Teaches mathematical tools required for  
the study of undergraduate economics

Core Course III

Micro Economics – II

EC3 B04

Develops the tools for further economic  
analysis.

I Complementary Banking EC3 C05

II Complementary Co-operation EC3 C06

#### **IV Semester**

Common Course IX EC4 A09

*Detailed syllaby and objectives are to be provided by the University*

Common Course X EC4 A10

Core Course V

Quantitative Methods  
for Economic Analysis

II

EC4 B05

Teaches Statistical tools required for the  
study of undergraduate economics

Core Course VI

Macroeconomics II

EC4 B06

To develop the tools for further economic  
analysis.

I Complementary Banking EC4 C07 *Detailed syllabi and objectives are to be provided Seperately.*

II Complementary Co-operation EC4 C08

#### **V Semester**

Core Course VII

Computer Application  
for Economic Analysis

EC5 B07

Develops the tools for further economic  
analysis.

Core Course VIII

Indian Economy

EC5 B08

Introduces the Political economy of  
development of Indian economy.

Core Course IX

Foreign trade documentation and logistic

EC5 B09

Introduces the basics of export&import documentation and modern concepts of logistics

Core Course X Export Marketing

Elective Course

(For Economic  
Students)

Gender Economics

EC5 D01

Introduces the fundamental principles of gender awareness  
Health Economics  
EC5 D02  
Teaches the fundamental aspects of Health and its emerging issues.  
Economics of business and Finance

EC5 D03  
Introduces the students to the basics of business, managerial and financial economics .  
Course / Project/Visit EC5 B15 (Pr.)  
Application of what is taught.( Group activity)

#### **VI Semester**

Core Course XI  
Shipping and insurance practice

Core Course XII  
Public Finance  
EC6 B12  
Introduces the role of public governmental activities expenditure in the functioning of an economy.

Core Course XIII  
Foreign trade financing and procedure.

EC6 B13  
Introduces the theories of export-import financing

Core Course XIV  
Political economy of development and Planning

EC6 B14  
Introduces the basic theories and issues of development and planning.

Open Course I  
(For Non-Economic Students)

Basic Principles of Economics

EC6 E01  
Introduction to the fundamental principles of Economics.

International trade and Business

EC6 E02  
Introduction to international trade theories and practices.

Banking  
EC6 E03  
Introduces the theory and practice of banking

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Project/Course/Visit EC6 B15 (Pr.)

#### **Complementary Courses**

1. Essentials of Economics.
  2. Co Operation
  3. Banking
  4. Mathematical tools for economics
- (Plus other complementary courses offered by sister departments)

**Suggested Contents :**

The contents of each course listed above cover most of the *important and the latest theoretical and empirical developments* in their respective fields.

**Suggested Reference :**

We propose a list of *books* as the required textbooks for each course. We also provide additional reading list for every course.

**Suggested Teaching Method :**

The current practice of teaching Economics is to give lectures that dominate theories. This method often gives students a mistaken impression that economics is devoid of any practical and real-life use or applications. So we suggest to incorporate as many *real-life examples* as possible in the process of teaching. Reference books contain plenty of examples from different fields of the subject. One can improve this with the aid of modern communication devices.

**Suggested Assessment and Evaluation Methods :**

We follow the directions put forward by the University with regard to *assessment and evaluation*. As per these directions, there will be examinations conducted by the University at the *end* of each semester.

There will be an internal *assessment* that carries *25 percent of marks*, The internal assessment is further split up as follows. Attendance, (Five marks), two test papers, (Five Marks) seminar and viva voce (Five marks) assignment and Record (Ten Marks). With respect to evaluation, performance of a student is evaluated in terms of *grades*. The University directs to use *direct-grading* with a *5-point scale*.

## CORE COURSES

### Semester I

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#### I. Microeconomics - I

##### a. Introduction :

Education in Economics begins with a study of the most fundamental ideas that govern economic activities.

A beginner normally commences the study of these ideas with two courses in the methodology and principles of economics. The first course covers the simple relations that are concerned with the economic

behavior of individual economic agents. This course is called microeconomics I. It will introduce the students

to the basic ideas and tools that will be utilized throughout in other courses of the degree programme.

##### b. Objectives :

This course is intended to provide students a basic idea in microeconomics and its methodology.

The main objective of this course is to equip students with the basic idea of economic analysis.

##### c. Learning Outcome :

With this course, students are expected to learn the simple relationships and ideas in the theory of consumption, production, cost and revenue.

##### d. Syllabus

###### Module -1 Introduction to Social Sciences:

Relevance of Social Sciences in understanding and solving cotemporary problems at regional, national and global levels

###### Module-II Introduction to Micro Economic Theory

Micro Economics and its scope. Wants & scarcity, Functions of Economic system, Circular flow

of economic activity – price determination and functions of prices-concept of margin, Economic

models, Methodology, Value judgement, Positive and normative analysis

###### Module-III: Basic demand supply analysis

Market analysis-market demand and market supply-market equilibrium-adjustment to changes in

demand and supply / static and dynamic analysis- comparative static analysis, Algebraic explanation to market equilibrium, market demand and elasticity, Types of elasticity-price,



income

& cross elasticity, measurement of elasticity, MR and price elasticity, Elasticity of supply.

Determinants of elasticity, uses of elasticity,

#### **Module IV-Consumer Behaviour and Demand**

Utility Analysis – Total and Marginal Utility – Cardinal & Ordinal Utility. Indifference Curves- Characteristics, MRS-Special Types of Indifference Curves, Consumer's Income-Price Constraints-

Budget Line-Changes in Income and Prices and Budget line, Consumer's choice, Utility Maximisation, The Changes in demand and Engel's Curve, Changes in Price Substitution Effect

and Income Effect / Hicksian and Slutsky's Analysis Normal, Inferior and Giffen Goods, (Application of Indifference Curve Analysis.) Revealed preference theory. Strong Ordering and Weak Ordering. Fundamental Theorem of Consumption Theory, Derivation of Demand Curve under Cardinal, Ordinal and Revealed Preference Theory –.

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#### **Module V-Production/ Cost and Revenue**

Production function – AP and MP Production with one variable input, Production with two variable inputs, Isoquants – MRTS-elasticity of factor substitution. Isocline - Ridge Line, Returns

to Scale, . Cobb Douglas Production function. Cost of Production, Nature of Production, Costs, Short run and Long run Costs, Isocost lines. Least cost input Combination, Expansion path, Derivation of LAC and LMC, Introduction to Modern Cost Curves. Concepts of revenue – AR, MR, TR; Break even point.

#### **Reference**

1 Dominick Salvatore : Microeconomics : Theory and Applications', :Oxford University press, Newdelhi.

2 A. Koutsoyannis : Modern Microeconomics, - Mac millan

3 Hunt, Elgin, F (2008) Social Science and its methods in Social Science : An Introduction to the Study of Society : Allen and Bacon

4 Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education

#### **Additional Readings**

1. Dominick Salvatore 'Microeconomic Theory' Schaum's Outline series : Tata Magrahill.

2. Lipsey R. and A Chrystal – Economics (11<sup>th</sup> Edition) Oxford University Press New Delhi.

Note: Case study analysis may be included while teaching various topics, wherever relevant. This

may be used for assignments and internal examinations only.

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## **Semester II :**

### **Macroeconomics -I**

#### **a. Introduction:**

The study of economics begins with the fundamental ideas of economic actions. The second fundamental course i.e. macroeconomics. I offer the students a view on the economy as a

whole. This course will introduce the students to the basic ideas and tools that will be utilized throughout in the other courses of the degree programme.

#### **b. Objectives :**

This course is intended to provide students with the basic ideas in classical and Keynesian macroeconomics.

#### **c. Learning Outcome :**

With this course, students are expected to learn the relationships and ideas in the measurement of national income, the .theory of income determination, fiscal and monetary policies,

the government and its role in the functioning of the economy, etc.

#### **d. Syllabus**

##### **Module I: Why study Economics**

A Methodological framework of studying Economics – Its relevance and importants

##### **Module 2: Macro Economic Concepts & Models**

Micro Economics and Macro Economics - National Income concepts Potential GNP

- Actual GNP - GDP Gap – Green GNP

Macro - Economic Models – Exogenous, Endogenous, ex-ante, ex-post, Nominal, real, dependent and independent variables – Identities and Equations.

### **Module 3: Classical Macro Economic Model**

Say's Law of Markets – Wage – Price Flexibility – Classical Model of Output and Employment – Quantity Theory of Money – Fisher's Equation of Exchange – Cash Balance Approach – Neutrality of Money – Money illusion – Pigou effect – Real Balance effect – Classical dichotomy – Concept of full employment – voluntary unemployment.

### **Module 4: Keynesian Macro Economic Model**

Consumption function – Psychological Law of Consumption – Determinants of Consumption – APC and MPC – APS and MPS – Paradox of thrift – Income, Consumption and Saving relationship – Investment function – determinants of investment — MEC, MEI and the role of Expectations – Principle of Effective Demand – Underemployment equilibrium – Wage. Price rigidity – Determination of Income in two and three sectors (using Keynesian Cross diagrams and algebra)

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### **Module 5: Elementary IS LM Model (Two Sector only)**

Definition & Derivation of IS and LM curves – General Equilibrium using IS & LM curves.

#### **References:**

1. Edward Shapiro – 'Macro economics' Oxford University press.
2. Gregory Mankiw – 'Macro economics' – 6<sup>th</sup> Edn. Tata McGraw Hill.
- 3 Richard T. Frogmen – 'Macro economics', Pearson education.
- 5 Eugene Diutio – Macro economic Theory, Schaum's Outline series. Tata McGraw Hill
- 6 Errol D'Souza – 'Macro Economics' – Pearson Education 2008.
- 7 Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education

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#### **Additional Readings**

- 9 Dominick Salvatore : 'Microeconomic Theory' Schaum's Outline series : Tata Magrahill.
  - 10 Lipsey R. and A Chrytal – Economics (11<sup>th</sup> Edition) Oxford University Press Newdelhi.
- Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

## **Semester III :**

### **Quantitative Methods for Economic Analysis - 1**

#### **a. Introduction:**

Economics is increasingly becoming quantitative in nature. Students of economics today need a

variety of quantitative skills. Mathematical skills have also become an essential element in the toolkit for higher education.

#### **b. Objectives**

The students is to develop skills in mathematical techniques that are required for a meaningful study of both theoretical and applied economics.

#### **c. Learning Outcome**

This course in quantitative methods will cover the essential topics in mathematics. Needed for Economic analysis.

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#### **d. Syllabus**

##### **Module I- Algebra**

Exponents and Logarithms - Arithmetic and Geometric Progression- Equations-Types and solutions of Linear, Quadratic and Simultaneous Equations up to three unknowns. Set Theory- Types and Set Operations, Domain and Range of Set.

##### **Module II- Basic Matrix Algebra**

Matrices-Types, Matrix manipulations and their rules, Order of Matrix, Transpose of Matrix- Determinants up to order 3x3- Properties and Value of determinant, Minor and Cofactor, Inverse and Cramer's Rule.

##### **Module III Functions and Graphs**

Types of Functions- Rectangular Co-ordinate System and graphs of functions - Slope and Intercept

- Equations of straight lines.

#### **Module IV –Differential Calculus**

Limits and Continuity- Differentiation- Rules, Derivative of Functions except Trigonometric Function, Higher Order Derivatives, Partial and Total Derivatives in two variable functions- Maxima and Minima of Functions- Curvature Properties-Convexity and Concavity.

#### **Module V- Financial Mathematics**

Growth rate: Simple and Compound, Depreciation- Time Value of Money- Future and Present Value, Compounding and Discounting, Net Present Value and Internal Rate of Return.

**(Mathematical proof of Theorems is not necessary.)**

#### **Reference:**

1. Sydsaeter K and P. Hammond, Essential Mathematics for Economic Analysis, Financial Times- Prentice Hall, London, 2002.
2. Holden. K and A.W. Pearson, Introductory Mathematics for Economics and Business, Macmillan, 2002.
3. Barauh.S, Basic Mathematics and Its Application in Economics, Macmillan, 2002.
4. Allen R.G.D, Mathematical Analysis for Economist, Macmillan, 1986.
5. Dowling E.T, Mathematical Methods for Business and Economics, Schaums Outline Series, McGraw Hill, 1993.

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### **Semester III**

#### **Microeconomics-II**

##### **a. Introduction :**

This part of the syllabus focuses on the particulars of the market- It attempts to explain how a particular market functions;

##### **b.Objectives :**

It is designed to introduce undergraduate students to the fundamental concepts of the markets and its structures. The objective of the course is to apply principles of microeconomic analysis to the day-to-day decision-making of firms and market .

##### **c. Learning Outcome:**

It is expected to develop skills in students in understanding the functioning of various type of market. This crucial skill will certainly help students in understanding and solving economic problems of the society, make policy .

##### **d. Syllabus**

###### **Module 1: Market Structure – Perfect Competition:**

Price determination in the market period – Short period and long period / Equilibrium of the firm – Efficiency implications of the firm.

###### **Module 2: Imperfect Competition – Monopoly:**

Price and output under monopoly – sources of monopoly – Types of monopoly – market demand curve under monopoly – short run and long run equilibrium of the monopolist – (MC - MR approach) – social cost of monopoly –Degrees of price discrimination – Equilibrium of discriminating monopolist – dumping – regulation of monopoly – A comparison of perfect competition and monopoly.

###### **Module 3: Monopolistic Competition:**

Monopolistic competition price and output determination – short run and long run -Product differentiation – selling cost – non-price competition – Chamberline’s group equilibrium and the concept of excess capacity.

###### **Module 4: Oligopoly:**

Features and types of oligopoly – Kinked demand curve theory.

###### **Module 5: : Factor pricing**

Input pricing and employment under perfect competition – profit maximization and optimal employment – demand curve of a firm for an input – market demand curve for an input and its elasticity – Supply curve of an input – pricing and employment of an input.

###### **Recommended Readings:**

Dominick Salvatore : Microeconomics : Theory and Applications’,;Oxford University press, Newdelhi.

A. Koutsoyannis : Modern Microeconomics,

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###### **Additional Readings**

Dominick Salvatore : ‘Microeconomic Theory’ Schaum’s Outline series : Tata Magrahill.

Lipsey R. and A Chrytal – Economics (11<sup>th</sup> Edition) Oxford University Press Newdelhi.

Note: Case study analysis may be included while teaching various topics, wherever relevant.

This  
may be used for assignments and internal examinations only.

## **Semester IV**

# **Quantitative Methods for Economic Analysis – II**

### **a. Introduction**

Students of economics today need a variety of statistical skills to collect and analyse and interpret empirical data. They also require these skills for advanced studies in empirical-oriented

fields. Statistical skills have become an essential toolkit for most branches of economics.

### **b. Objectives**

This course is intended to provide students an introduction to statistical methods and tools that are used in the study of economics at undergraduate level. The aim of this course is to develop  
skill in statistical techniques that are required for a meaningful study of applied economics and for

carrying out empirical research.

### **c. Learning Outcome**

Students are expected to acquire statistical skills that are necessary for further study in most branches of economics.

### **d. Syllabus**

#### **Module I. Meaning of Statistics and Description of Data**

Definition, Scope and Limitations of Statistics-Frequency distribution- Representation of data by

Frequency polygon, Ogives and Pie Diagram. Measures of Central tendency- Arithmetic Mean,

Median, Mode, Geometric Mean and Harmonic Mean-Weighted averages-Positional values- Quartiles, Deciles and Percentiles-Business Averages-Quadratic Mean and Progressive Average-

Measures of Dispersion: Absolute and Relative measures of Range, Quartile Deviation, Mean Deviation and Standard Deviation- Lorenz Curve- Gini Coefficient- Skewness and Kurtosis.

#### **Module II. Correlation and Regression Analysis**

Correlation-Meaning, Types and Degrees of Correlation- Methods of Measuring Correlation- Graphical Methods: Scatter Diagram and Correlation Graph; Algebraic Methods: Karl Pearson's

Coefficient of Correlation and Rank Correlation Coefficient - Properties and Interpretation of Correlation Coefficient-Simple linear regression-Meaning, Principle of Ordinary Least Squares and

Regression Lines.

#### **Module III. Index Numbers and Time Series Analysis**

Index Numbers: Meaning and Uses- Unweighted and Weighted Index Numbers: Laspeyre's, 16

Paasche's, Fisher's, Dorbish-Bowley, Marshall-Edgeworth and Kelley's Methods- Tests of Index

Numbers: Time Reversal and Factor Reversal tests -Base Shifting, Splicing and Deflating-Special

Purpose Indices-Wholesale Price Index, Consumer Price Index and Stock Price Indices: BSESENSEX

and NSE-NIFTY. Time Series Analysis-Components of Time Series, Measurement of Trend by Moving Average and the Method of Least Squares.

#### **Module IV. Vital Statistics**

Vital Statistics: Meaning and Uses- Fertility Rates: Crude Birth Rate, General Fertility Rate, Specific Fertility Rate, Gross Reproduction Rate and Net Reproduction Rate - Mortality Rates: Crude Death Rate, Specific Death Rate, Standardised Death Rate, Infant Mortality Rate and Maternal Mortality Rate-Sex Ratio and Couple Protection Ratio.

**Proof of Theorems is not necessary ( Applicable to all modules)**

#### **Reference:**

1. Lind D.A., W.G. Marchal and S.A Wathen., Statistical Techniques in Business and Economics, Tata Mc Graw Hill, New Delhi.
2. Gupta S. P, Statistical Methods, Sultan Chand and Sons, New Delhi.

## **Semester IV**

## Macroeconomics-II

### a. Introduction:

Policy makers all over the world use macroeconomic theories and related empirical results to frame policies. Similarly, business firms, use these theories and results to formulate their strategies. A sound understanding of macroeconomic principles and their applications is essential

for students of Economics.

### b. Objectives:

The objective is to familiarise the students in the application of principles of macroeconomic analysis to the day-to-day decision-making in the aggregate economy.

### c. Learning Outcome :

This course is expected to develop skill in economic reasoning, This vital skill is expected to help them in understanding and solving aggregate economic problems.

### d. Syllabus

#### Module 1: Theories of Money

Nature and Functions of Money - Types of Money: Near money, inside money and outside money.

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1. Theories of Demand for money - Defining demand for money - Classical theory of demand for money - Friedman's re-statement of Quantity Theory of Money - Liquidity Preference theory and Keynesian Liquidity Trap.

2. Theories of Supply of money: - Defining supply of money - Measuring supply of money - High powered money & money multiplier

#### Module 2: Theories of Inflation and Unemployment

Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of

Inflation in India - Meaning and types of unemployment. - Cost of unemployment and Okun's Law - Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

#### Module 3: Macro economic Instability and Policy:

Business Cycle: meaning, types and phases. - Monetary, Fiscal, and income policy - Meaning and Instruments.

#### Module 4: Open Economy Macro Economics:

a. Foreign trade multiplier - Four sector macro economic model Using IS-LM-Balance of Payment Schedule

#### Reference:

1. Edward Shapiro – 'Macro economic Analysis' Oxford University press.
2. Gregory Mankiw – 'Macro economics' – 6<sup>th</sup> Edn. Tata McGraw Hill.
3. Richard T. Frogmen – 'Macro economics', Pearson education.
4. Eugene Diutio – Macro economic Theory, Shaum's Outline series. Tata McGraw Hill
5. Errol D'Souza – 'Macro Economics' – Pearson Education 2008.

### Semester V

## Computer Applications in Economics

### a. Introduction :

Information technology has revolutionised the way we live and work. Economics is relatively more

quantitative in nature than many other social sciences. Thus computer application has assumed

utmost significance in Economics. Many of the large models in macroeconomics such as inputoutput

models, national income estimation models, etc., require applications of computer programmes. Similarly, Computer application will facilitate in-depth studies in other branches of

Economics.

### b. Objectives :

This course will provide the students with a skill that is .that is useful both in job market and in academia.

### c. Learning Outcome:

It is expected to provide the students with those computing skills that are, necessary for

success.

This course will arm the students with the knowledge of fundamentals of computers  
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## **d. Syllabus**

### **Module 1. Philosophical foundations of Computing**

Software - Philosophy of open source software – social computing – Operating systems

### **Module 2. Creation and Manipulation of Documents**

Word processor basics. New blank document and toolbars. Manipulation of the first document. Editing the document. Designing and redesigning the document. Working with graphs, pictures and video in documents. Records and mail merge.

### **Module 3: Data Analysis**

Spreadsheet basics. Excel environment. Insertion of rows and columns. Entering data. Excel toolbars. Creation and manipulation of charts and graphs. Manipulation of data. Mathematical and statistical calculations. Excel functions. Changing the layout. Applications in economics using simple examples.

### **Module 4: Database Management**

Introduction to database. Defining database. Meaning and functions of database management system. Creation and manipulation of tables. Updating tables. Working with forms. Handling queries. Generating reports. Applications in economics using simple examples.

### **Module 5: Preparation of Presentations**

Introduction to PowerPoint. Starting PowerPoint. AutoContent Wizard. Working with texts, graphs, pictures, audio and video in slides. Design templates. Adding transition effects to slides. Adding animation in slides. Previewing the contents.

### **Module 6: The Internet and E-Commerce**

Meaning and scope of the Internet. Creating, sending and receiving e-mails. Browsing the WWW. Downloading from and uploading to the Internet. Online shopping and e-business/e-commerce., E-market. (Concepts)

Note: 25 marks for this paper are from internal examination. Internal marks should be awarded based on practical examinations. Expected practical sessions for teaching: 20 hours.

### **Reference**

1. Vikas Gupta – Comdex Computer Course Kit – Dream Teck Press
2. Sharma D - Fountations of IT- Excel books.

## **Semester : V**

### **Indian Economy**

#### **a. Introduction :**

Indian economy has already undergone much changes. This transformation is still taking place in every sector of the economy. However, many of the basic problems of the economy still

Existing . These include poverty, inequality, unemployment, infrastructural bottlenecks, demographic issues, and so on. A student of economics must have a clear understanding of the

extent of success and failures of the economy.

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#### **b. Objective :**

This course aims at giving students a reasonable introduction to Indian economy. The course will concentrate on both the achievements and the issues of the economy.

#### **c. Learning Outcome :**

The students will, acquaint with a good understanding of the structure achievements ,issues and prospects of Indian economy.

## **syllabus**

### **Module 1: Resource Base and Structure of Indian Economy**

Economic Geography of India – Basic features - Human Resource: Demographic features, extent of unemployment, poverty, and inequality: Recent trends and conceptual issues. HDI of India.- Trend in National Income and Percapita income. - Sectoral composition (output and employment) Primary, Secondary and Tertiary Sectors.

### **Module 2: Agriculture**

Trends and Composition of Output of major crops. - Trends in Investment, Credit and Agricultural Subsidy. - New Agricultural strategy of 1960s (Green Revolution) - Food

security and PDS in India - Evaluating Land Reforms in India - New Agricultural Policy (In the context of liberalization.)

### **Module 3: Industry**

Industrial structure in India: Traditional, SSI, Village, Cottage and Modern industries.  
- Industrial Policy Resolution in India till 1991 - New Industrial Policy and its impacts.

### **Module 4: External Sector**

Trends and composition of India's Imports - Trends and direction of India's Exports - EXIM Policy of India in relation to trade liberalization and its impacts-FDI, FII and MNCs in India - External Borrowing and BOP problem in India - International Institutions (IMF, WB, ADB, WTO) and the Indian Economy.

### **Reference:**

1. Uma , Kapila, (2008), 'Indian Economy: Performance & Policies', 8<sup>th</sup> Ed. Academic Foundation, New Delhi
2. Prakash, B.A. (Ed.) (2009), 'Indian Economy Since 1991: Economic Reforms and Performance. Sage Publications new Delhi.
3. Bhalla, G.S. (2008) 'Indian Agriculture since Independence ( 2008), NBT. New Delhi
4. Amit Bhaduri, Development with Dignity. (2005) NBT New Delhi Additional Reading:
5. IC. Dhingra : Indian Economy Environment and policy – Sultan chant and sons.

### **Additional Reading**

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1. EPW, Various issues
2. Hindu Business Line, daily.
3. Social scientist
4. Kurein CT, The Economy an Interpretative Introduction. – Safe publication, 1994
5. SK Misra and UK Puri : Indian Economy This development Experience, Himalaya publications.

### **Semester - V**

## **SEMISTER V** **FOREIGN TRADE** **DOCUMENTATION&LOGISTICS**

### **A) INTRODUCTION**

International trade procedures and documentation has undergone remarkable changes over the last decade. This paper shows how export ,import and logistic management are closely interlinked.

### **B)OBJECTIVES**

To familiarize the students with the basic documents involved in foreign Trade, processing of an export order, negotiation of documents.

### **C)LEARNING OUTCOME**

With the course students are expected to understand the various issues of documentation of international trade in the new era of globalization .They can grasp what is new generation logistic

### ***Module I***

#### **COMMON EXPORT DOCUMENTS**

A) C E Mark requirements - export license - Commercial Invoice – Bill of Lading – Insurance certificate - Export Packing list - Import License - Consular Invoice – Air way bills – Dock receipt and ware house receipt – Destination control statement – Certificate of origin

#### **B)INTERNATIONAL COMMERCIAL TERMS**

## **Module II**

### STEPS INVOLVED IN EXPORTS DOCUMENTATION

- A) Parties, Acts and important publications- obtaining the Reserve Bank code Number, Registration with Export Promotion Councils- obtaining Import- Export code number.
- B) Steps that need to be followed in processing an Export order.
- C) Procedures for import.
- D) Clearing and forwarding agents - Import - Export.

## **Module III**

Objectives and elements of Logistics- introduction, Definition, the concept of logistics, importance of logistics, supply chain Management Vs Logistics.

## **Module IV**

### DISTRIBUTION CHANNELS

Direct and Indirect selling Channels, International marketing .

## **Module V**

Global production, outsourcing and logistics - Reverse Logistics - Outsourcing production : Make or Buy decisions. Third party logistics.

### **BOOKS RECOMENDED**

International Business

Competing with Global market plans -Charles Hill and Arun K Jain New Delhi  
M C Graw – Hill Companies 6th edition-New Delhi

Export – import and logistics management – Usha Kiran Rai  
Prentice Hall of India Pvt Ltd. - New Delhi

Export and Import Management – Sunil Kumar Malhotra  
Adhyayan Publishers & Distributors – New Delhi

Logistics Management - Reji ismail- Excel Books

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## **SEMESTER V**

### **EXPORT MARKETING**

#### **A)INTRODUCTION**

To familiarize the students with the nature and scope of international marketing as also the Four Ps of international marketing (Product, Price, promotion & place).To understand the students the various methods and procedures of costing and prices for exports

#### **B)OBJECTIVES**

To teach the various market –mix and matrix. How products and markets are selected in international trade

#### **C)LEARNING OUTCOME**



After the course the students get an idea of international marketing. They are familiar with trade blocks and international institutions

### **Module I**

International Business – An over view – Why is International Business – Different modes of International Business - the impediments in the path of International Business – Cultures and Business.

### **Module II**

INTERNATIONAL MARKETING

Marketing analysis - four Ps in International Business ( product, Price, Place, promotion ) – Their strategies.

### **Modules III**

Regional Economies integration (trade blocks).  
E - Commerce logistics.

### **Module IV**

Export Marketing Mix  
Product Adaptations – Export pricing

### **Module V**

Foreign Exchange Market – The Exchange Rate – Types – Exchange Rate Regimes - The balance of payment.

### **BOOKS RECOMMENDED**

- 1) Elements of International Economics – Gian carlo Gandolfo  
Springer (India ) Pvt Ltd.- New Delhi
- 2) International Business – Oded Shankar & Yadong Luo  
John Wiley & sons Inc – Noida
- 3) International Marketing – Michael R – Czinkota and iikka Ronkainen  
South – Western – Cengage Learning India Pvt Ltd – New Delhi
- 4) International Business – Cherunilan, F, Prentice Hall Of India, New Delhi
- 5) Global Marketing Management – Keegan, W.J , Pearson Education, Asia , New Delhi
- 6) International Marketing – Cateora PR, and Graham, J.L , Tata MC Grow – Hill  
New Delhi

## **Semester VI**

## **SEMESTER VI**

# **SHIPPING & INSURANCE PRACTICES**

## **A)INTRODUCTION**

To Familiarize the students with the changing concept of shipping and marine insurance.  
India's role in International shipping.  
How to book shipping space for export and import

## **B)OBJECTIVES**

An understanding of Shipping& Marine Insurance are needed to familiarize the export trade.How shipping industry works .how a marine claim is made etc are the objective

## **C) LEARNING OUTCOME**

To understand the scope of shipping & marine insurance. How to build up a carrier in this area

## **D) SYLLABUS**

### **Module I**

WORLD SHIPPING

Nature of Export Cargo – Modes of Transport – Forms of Shipping – Type of Shipping

### **Module II**

Indian Shipping

Present status of Indian Shipping Major Problems.

Recent trends of Indian shipping.

Fresh Challenges and opportunities ahead.

### **Module III**

Containerization

Dry Port – Multi modal Transport Document – containerization

Procedures for export import through in land container Depot.

Procedure for excise and customs Clearances in respect of container.

Types of Containerization – Advent of Containerization in India.

### **Module IV**

Marine Insurance – Types of Insurance Policy – Extent of Insurance Coverage, Claim procedure.

### **Module V**

Export credit Risk Insurance through EGGC and product Liability Insurance.

Standard policy – Claims - small exporters policy – specific policies – No claim bonus –

Financial Guarantees to Banks – Special schemes.

## **REFERENCE**

Export – What , Where , How – Paras Ram

Anupam Publishes – Delhi.

International trade and Export Management – Francis cherunilam

Logistics Management – Vinod U. Sople – Pearson Education – New Delhi.

Logistics Management – Raj Ismail – Excel Books – New Delhi.

International Logistics – Pierre David – Bizatantra – New Delhi

Foreign Trade Policy – Business Date info Publishing Company – New Delhi

Export Management - S. R Ullal

Export Management - TAS Balagopal.

## **Semester VI:**

### **Public Finance**

#### **a. Introduction :**

Public finance or fiscal economics deals with the fisc of the country. It is related to decision making in the public sector or finance of the governmental agencies. A training in public

finance will help students in decision making and in higher studies.

#### **b. Objectives :**

The basic aim of this course is to introduce students to the application of the techniques, methods and principles of Economics to decision making in public finance.

#### **c. Learning Outcome :**

The students are expected to learn how the principles of economics can be applied to sound decision making in public finance. They are expected to learn all the important economic issues

that government agents face.

#### **d. Syllabus**

##### **Module I Meaning and Scope of Public finance**

Public finance – Meaning and Scope – Public and Private Finance – Principles of Maximum Social Advantage – Public Goods, Private Goods, Mixed Goods and Merit Goods (Concept only)

##### **Module II Public Expenditure**

Meaning and Importance – Reasons for the Growth of Public Expenditure

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– Wagner's Hypothesis, Peacock - Wiseman Hypothesis, Canon's of Public Expenditure – Effects of Public Expenditure.

##### **Module III Public Revenue**

Sources of public revenue Taxes -Classification of Taxes - Canons of Taxation, Principles of Taxation. Ability, Benefit and cost of service- Impact, Incidence and shifting of Tax Burden — Effects of Taxation – Major Taxes in India. Value Added Tax in India , The concept of goods and service tax (GST)

##### **Module IV Public Debt and Budget**

Public Debt : Meaning, Types of Public Debt, Debt Redemption.

##### **Budget**

Meaning, Types of Budget: Revenue and Capital Budget, Revenue Expenditure and capital expenditure, Revenue Deficit, Fiscal Deficit, Primary Deficit - Budget Deficit – Fiscal Policy – Contra Cyclical Fiscal Policy – Deficit financing - Preparation of Budget in India – (Introduce the latest Central and State Budgets to the students.)

##### **Module V Federal Finance**

Meaning – Principles of Federalism – Finance Commission (Finance Commission Report – Latest) - Importance of Local finance in India

References

- (1) R.A Musgrave and PB Musgrave – Public finance – Tata Macgrail
- (2) Govinda Rao and Singh - Political Economy of Federalism in India – Oxford.
- (3) Govinda Rao – State Finances in India Issues and Challenges ( Article) EPW – 03-08-2002.

(4) Shankar Acharya – Thirty Years of Tax Reforms in India (Article) EPW – 14-05-1995.

(5) Bhatia HL – Public Finance – Vikas Publishing.

(6) Lekhy Public Finance and Public Economics – Kalyani publications,

Additional Reading

3. Economic Review – Govt of Kerala

4. Economic survey Govt of India

26

## **Semester VI :**

# **FOREIGN TRADE FINANCING AND PROCEDURE**

## **A)INTRODUCTION**

To familiarize the students the various sources of Foreign Trade financing. To understand the activities of international and national financial institution and their working. Students may get a birds eye view regarding the foreign Trade financing . This paper explores the determinants of international flows of financial assets as well as examining the effects of these flows.

## **B)OBJECTIVES**

To equip the student to further study in field of foreign trade financing.To understand the financing schemes of various international institutions and their strings.

## **C)LEARNING OUTCOME**

The students get clear understanding of the pros and cons of international financial institutions programmes in the pretext of financing trade of third world economies.

### **Module I**

Fiscal incentives for exporting

Duty- draw back credit scheme – Excise duties relief – Sales Tax exemption – Central Sales tax re – imbursement.

### **Module II**

EXPORT FINANCE

Pre- shipment and post shipment – Short term credit – Financing software and IT Industry

Post shipment finance –guide lines, methods, procedures – Post shipment Export Credit Guarantee – Export Credit in Foreign Currency.

### **Module III**

Eximbank – FEMA. Foreign currency Accounts Rupee Payment Area – Terms of Payment – Letter of credit (L/C).

### **Module IV**

THE FOREIGN EXCHANGE MARKET

The Exchange Rate – Spot – Forward Exchange – Currency Derivatives – Futures options, swap transactions \_ euro dollars and xe no – Currencies.

### **Module V**

Exchange Rate Regimes and the International monetary system.

The Balance of payments Accounting and presentation – standard components – current account – capital account

International policy co-ordination – policy optimization, Gama Theory.

### **REFERENCE**

Elements of international Economics – Giancarlo-springar

International Finance – gasdolfo – Springer

International Economies, Mundell , R.A Macmillan , New York

International Business Environment – Francis Cherunilam – Himalaya Publishing House

International Economic Problems – Leonark Gomes – Macmillan, London

Foreign exchange and Exchange Control – V.V. Keshkamat – Vivek Publishers Bombay

Monetary Economies – MI seth – Lakshmi Narayan Agarval – Agra.

## **Semester VI :**

### **The Political Economy of Development and Planning**

#### **a. Introduction :**

This course on the political economy of development and planning attempts to answer questions related to economic development in a comprehensive manner. Student who wish to take

up position in formulation and implementation of public policy must have a reasonably good understanding of its political economy aspects

#### **b. Objectives :**

The main. objective of this course is to introduce the students of such fundamental topics in. development and planning with their inter relations. This course is expected to provide students

a comprehensive approach towards issues related to development and planning.

#### **c. Learning Outcome :**

The students are expected to develop an interrelated to approach to resource use, the relationship between man and man and man and nature.

## **d. Syllabus**

### **Module I: Perspectives on Development Economics**

Why study Development economics? Growth and Development, An overview of measurement of development – GDP, PCI, PQLI, HDI, HPI, GDI, GEM, Sen's Capability Approach, Kuznet's inverted 'U'.

### **Module II: Theories of Development**

Low-level equilibrium trap, vicious circle of poverty, critical minimum effort, Big Push theory, Balanced versus Unbalanced theory.

### **Module III: Economic Planning**

Concept, meaning and types of planning, technique of planning, project formulation and evaluation

– Cost-Benefit Analysis. Market versus planning. Relevance of planning in the context of globalisation

### **Module IV: Economic Planning India**

Indian planning in a historical perspective, Bombay plan, Gandhian Plan, People's plan.

Five-year plans in India – an overview. Details of current five-year plan

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### **Module V: Issues in development**

Poverty – measurement and classification, Inequality and its measurement (Gini coefficient), gender issues – the concept of missing women. environment versus development – the concept of sustainable development, limits to growth, global warming.

#### **Reference:**

1. A.P. Thirlwal 'Growth and Development', palgrave
2. M.P. Todaro SC Smith 'Economic Development' Pearson Education
3. Subrato Ghatak 'Introduction to Development Economics' - Routledge
4. Amir Kumar Bagchi - The Political Economy of Development – Orient Longman
5. Lester R Brown – Eco Economy – Orient Long man
6. Donella Meadows et.al – Limits to Growth – the Thirty Years update- Viva Publications.

### **(Semester V)**

## **Elective Courses To Economics Students**

### **I. Gender Economics**

#### **Module I - Introduction**

Definition of Gender- Gender and sex - Gender Equity and Gender Equality-Gender Development-

Human Development Index and Gender Development index-Gender Disparity Index-Gender Empowerment Measure- Gender Status in India and Kerala -Sex Ratio-Concept of Missing Women.

#### **Module II - Gender Discrimination in India and Kerala**

Gender Discrimination in Labour Force Participation- Occupational Segregation and Wage Differences- Gender Discrimination in Education, Health, Employment, Political Participation and

Decision Making.

#### **Module III - Gender Budgeting**

Gender awareness in planning- Invisibility of Women's Work in Budgeting- How to Adjust our Budgeting Policies to Reduce Gender Disparities.

#### **Module IV - Gender Issues in Contemporary World**

Women and Globalisation- Social and Economic Empowerment of Women- Technology and Gender:, for example Internet and Blogs.

#### **Reference:**

1. Gita Sen and Canen Crown; Gender and Class in Development Experience
2. Leela Gulati and Ramalingam; Kerala Women: A profile
3. Neera Desai and Maithreyi Krishnaraj; Health-A Gender Issue in India
4. Lourdes Beneria and Savithri Biswanath; Gender and Development: Theoretical, Empirical and practical Approaches

5. Lekha Chakraborti; Invisibility of Women's Work in Budgeting.

6. National Institute of public Finance and policy (NIPFP); Gender Budgeting in India,

29

[www.nipfp.org.in](http://www.nipfp.org.in).

## II. Health Economics

### Module 1: Introduction to Health Economics:

Defining Health Economics. Importance of Health Economics – Essential Features.

Concepts: Health, Health Care, Birth rate, Fertility rate, Death rate, IMR, CMR, MMR, Morbidity rate (Acute and Chronic), Disability Adjusted Life Year (DALY), Quality Adjusted Life Year (QUALY), Sex Ratio.

### Module 2: Demand and Supply of Health Care:

Demand for Health Care – Case of Health Care Accessibility – Socio Economic and Cultural Features, Determining Health Status – Supply of Health, Health Care Delivery System – Pricing of Health Care.

### Module 3: Health Financing & Policy::

Health Expenditure – Public & Private – Direct and Indirect – Health Insurance – Concept of User Cost – Health Policy of WHO, National Health Policy – NRHM, Health as a State Subject.

### Module 4: Health Statistics in India and Kerala:

Infrastructure and Health Status of India & Kerala using informations from NSSO, NFHS, CRS and SRS.

### References :

- 1) V. Ramankutty – A Premier of Health System Economics (2007) Allied publications New Delhi
2. Kannan KP, et.al..... (1991) Health Development in Rural Kerala – (KSSP, Thiruvanthapuram)..
3. Henderson JW - Health Economics and Policy – Thomson learning.

## III. Economics of Business and Finance

### Module 1: Introduction:

Basic concept of Business Economics, Financial Economics and Managerial Economics.  
30

### Module II: Investments –

Meaning, nature and importance. Considerations in Investment decision and investment process – Investment alternatives – Capital Budgeting – Introduction and methods

### Module III Organising Financial asset various financial assets and securities.

Introduction to Balance Sheets – Evaluation of Balance Sheets – Break even Analysis – Linear and non-linear – time value money

Future Value and Compounding – present value of discounting.

**Module IV** Introduction to Demand Estimation, Demand forecasting – Production Function and its importance – Cost estimation, Cost functions – Economics of Scale, Cost cuts and estimation Cartal, price leadership, price discrimination, pricing strategies.

### References:

1. Kettell, Brian – Financial Economics – Making sense of Market information, Financial Time, Prentice Hall, London – 2001.
2. Nellis J., and D. Parker – Principles of Business Economics 2<sup>nd</sup> Edition – Pearson Education, London.
3. Griffith A. and S. Wall = Economics for Business and Management – Pearson Education, London (2004)
4. Keat P.G. and P.K.Y. Young – Managerial Economics – Tools for Today's Decision matters – Pearson Education New Delhi – 2006.

(Semester VI)

## Open Course for Non-Economic Students

### I Basic principles of Economics

#### Module 1: Economic Issues, Concepts and the Methods of Economics

Issues and concepts – Why study economics? Meaning of microeconomics and nature of modern economy. Resource scarcity, choice, opportunity cost and the production-possibility curves, Central Problems of an economy.

#### Module 2: Demand, Supply, Price Determination, Elasticities, and Consumer Behavior

Demand – nature, demand function, demand schedule, demand curve, shifts in demand curve, Supply – supply function, supply curve, shifts in supply curve, market equilibrium. Price determination and imbalances. Elasticity of demand – price elasticity (meaning and measurement). Elasticity of supply – meaning and

measurement. Consumer behavior – utility, marginal and total utility, diminishing marginal utility, and utility maximizing rule.

### **Module 3: Theory of Production, Costs and Market Structures**

Production and costs – production and production function, costs and profits, profitmaximizing output, law of diminishing returns, short-run cost curves and their relationships, profit maximization, and cost minimization. Market structure – Features of perfect competition and monopoly – oligopoly – monopolistic competition.

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### **Module 4: Macro economics and the Measurement of National Income:**

Macroeconomics – meaning and major macroeconomic issues. Gross Domestic Product (GDP) – meaning and types, and income and expenditure measures of GDP, and interpretation of measures. Circular flow of income and expenditure.

### **Module 5: Income Determination, Inflation, Unemployment, and Fiscal and Monetary Policies**

Classical theory – postulates, Say's law, and classical theory, consumption function, saving function, GDP, changes in GDP, income or investment multiplier. Inflation – meaning, measures, types, effects and theories. Fiscal and monetary policies: meaning, instruments, and effects on distribution, growth, stability and production. Financial crisis.

### **Reference**

5. Anintya Sen - Micro Economics – Oxford
6. Saumyan Sikdar – Principals of Macro Economics. - Oxford

## **II. International Trade and Finance**

### **Module 1: Introduction to International Trade**

Importance of International Trade - Inter-dependence among countries - The concept of 'Trade as an engine of Growth'

### **Module 2: Basic Theories of International Trade**

Absolute advantage - Comparative advantage – Hcksher Ohlin rguments for and against free trade

### **Module 3: Foreign Exchange and Balance of Payment**

Components of foreign exchange - Exchange rate determination (mention floating and fixed exchange rate; specify mint parity, PPP and supply and demand) - Devaluation, revaluation, appreciation and depreciation of currency. – BOP and BOT - Disequilibrium in BOP - Full and partial Convertibility

### **Module 4: International Finance**

IMF, World Bank, ADB, WTO, International Financial Flow: FDI, FII, Portfolio.

### **References:**

1. Dominick Salvatore 'International Economics', McMillan.
2. Bo Soderstien and Geoffrey Reed - 'International Economics'.
3. Francis Cherunilam - 'International Economics'.
4. Mannur, H.G. - 'International Economics'.
5. R.B.I. Bulletin, Various issues.

## **III. Banking**

### **Module 1:**

Banks, Evolution and Economic Importance, Growth of Banking in India.

### **Module 2:**

Commercial Banking - Branch Banking Vs Unit Banking, Group Banking, Chain

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Banking, Mixed Banking, Clearance Banks, Balance sheet, Rules of Management of funds, Assets, Liabilities, Financial Intermediaries, Bank Failures, Deposit Insurances, Merchant Banking - Nationalization of Banks in India : An overview of Changes after Nationalisation.

### **Module 3:**

Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary sources, Loans, Practices in Lending, Credit creation, Limitations.

### **Module 4:**

Accounts: Joint accounts, Partnership, Company guarantees, Individual Surety, Joint and Several Guarantee, Security, Exchange Securities, Life Policies, Payment and Collections of Cheques, Dishonouring, Negotiability, Crossing and Account payee.

### **Module 5:**

Central Banking: Evolution Functions- Reserve Bank of India. - Development Banking in India . emerging trends in capital market.

#### **Reference :**

1. R.S. Sayers, Modern Banking. Macmillan
2. M.D. Decock, Central Banking.
3. S.K. Basu, Banking in India.
4. Milnes Holdern, Studies in Practical Banking.
5. I.C. Dhingra, Indian Economy. - Sulthan chand and sons

## **Complementary Courses**

### **Semester – I**

## **Essentials of Economics – Micro**

### **Module I: Introduction to Economics**

What Economics is about? – Importance of the study of economics, relation with other social sciences (History, Political Science, Law, Psychology, Sociology). Basic Problems.

Micro versus Macro

### **Module II: Theory of Demand**

Utility, utility function, marginal utility, law of diminishing marginal utility, demand, law of demand. Elasticity of demand and its types.

### **Module III: Theory of Supply**

Cost, cost function, opportunity cost, variable cost, fixed cost, total cost, marginal cost, average cost, supply, supply function, supply curve, Elasticity of supply and its types. Equilibrium price, market and its classification

### **Module IV: Theory of Production**

Production function, types of production function (short run and long run), economies of scale

#### **Reference**

33

1. Dominick Salvatore 'Microeconomic Theory', Schuam's Outline Series

### **Semester – II**

## **Essentials of Economics – Macro**

### **Module I: National Income Concepts and Meaning**

GDP and GNP, NDP and NNP. GDP at factor cost and market price, GNP at market price and factor cost, NDP at market price and factor cost, NNP at market price and factor

cost. Personal Income, disposable income, per-capita income. Importance of the estimation of national income, difficulties in estimation of national income.

### **Module II: Major Classical Postulates**

Say's Law of Market, Full employment, wage-price flexibility, laissez-faire

### **Module III: Major Keynesian Concepts**

Effective demand, consumption, savings, under-employment equilibrium, wageprice rigidity

#### **Reference**

1. Diwedi DN 'Macroeconomics Theory and Policy' Tata Magragel

### **Semester – III**

## **Essentials of Economics – Money, Banking, Finance and Trade**

### **Module I: Money**

Definitions and functions of money, demand for and supply of money, Fischer's quantity theory of money, inflation and deflation

### **Module II: Banking**

Role and functions of commercial banks and central bank, monetary policy and its instruments, credit instruments (cheque, draft etc)

### **Module III: Public Finance**

Public revenue and its sources, public expenditure, public debt, deficit financing,



fiscal policy, budget, finance commission.

#### **Module IV: Trade**

Internal and External Trade, Why international trade?, balance of trade and balance of payment, foreign exchange rate, devaluation, revaluation, depreciation, appreciation.

#### **Reference**

1. Diwedi DN 'Macroeconomics Theory and Policy' Tata Magragel  
34
2. Salvator D and EA Diulio – Principals of Economics Schuam's Outline Series
3. Salvator D – International Economics Schuam's Outline Series

### **Semester – IV**

## **Essentials of Economics – Indian Economy**

#### **Module I: India as a Developing Economy**

Major Issues: poverty, unemployment and inequality - causes and remedies

#### **Module II: Major Sectors of Indian Economy**

Importance, contribution and problems of agricultural sector, green revolution, land reforms, Industry: importance, contribution and problems. Services: contribution to the national economy. Impact of economic reforms on major sectors.

#### **Module III: Planning**

Economic planning and its objectives; five year planning in India – achievements and failures

#### **Module IV: Kerala Economy**

Unique features, sectoral contribution, land reforms, decentralized planning, people's planning, achievements and challenges in Health and Educational Sectors, Role of Migration and remittances, tourism and development

#### **Reference**

1. Uma Kapila – (Ed) Indian Economy Since Independence – Academic Fountation – New Delhi
2. Keralapadhanam - KSSP Kozhikode

## **II. CO-OPERATION**

### **Semester I**

#### **Co-operation 1**

##### **Module 1: Principles and Problems of Co-operation:**

Meaning and Significance of Co-operation; Co-operation and other business enterprises; Problems of Co-operation, Role of Co-operatives in a dynamic economy.

##### **Module 2: Practice of Co-operation in Foreign Countries:**

Co-operative Movement in Germany, England, Denmark, Ireland, Japan, Italy, France, International Co-operative Alliance.

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### **Semester II**

#### **Co-operation 2**

##### **Module 1: Practice of Co-operation in India:**

Origin and Development of Co-operative Movements, Co-operative Legislations and Administrations. Recent Trends.

##### **Module 2: Co-operative Banking:**

Principles and Policy, Rural Primary Agricultural Credit Societies, Central Co-operative Banks, Banking Unions, State Co-operative Banks, Land Development Banks, Institutions in Aid Co-operative Banks.

### **Semester III**

#### **Co-operation 3**

##### **Module 1: Agricultural Co-operatives:**

Co-operative production, Co-operative Vs Collective Farming, Co-operative Supply (Service Co-operatives), Co-operative Marketing, Co-operative Processing, Co-operative Storage and Warehousing.

##### **Module 2: Non-Agricultural Co-operatives:**

Consumers' Co-operatives, Co-operative Housing, Urban Co-operative Credit Societies, Industrial Co-operatives, Workers' Co-operative, Dairy Co-operatives.

### **Semester- IV**

#### **Co-operation 4**

##### **Module 1: Human Resource Development in Co-operatives:**

Nature and Significance of Human Resources Development in Co-operatives, Co-operative Education and Training.

**Module 2: Role of Co-operatives in a Liberalised Financial situation.**

Analysing Vaidyanathan Committee Report – History & Role of Co-operative Movement in Kerala - Co-operatives and SHGs – Kudumbasree in Kerala, co operatives and de centralisation

**Reference :**

1. T.N. Hajila, Principles, Problems and Practices of Co-operation (Shivalal Agarwala & Co., Agra).
2. E.S. Bogardus, Principles of Co-operation.
3. K.R. Kulkarni, Theory & Practice of Co-operation in India and Abroad.
4. G. Druhain, The Co-operative Society as a Form of Enterprise.
- 36
5. H. Calvert, Law & Principles of Co-operation.
6. C.R. Ray, Co-operation at Home & Abroad.
7. R. Philips, Economic Nature of Co-operative Association.

### **III. BANKING**

#### **Semester I**

##### **Banking 1**

**Module 1:**

Banks, Evolution and Economic Importance, Functions, Growth of Banking in India.

**Module 2:**

Commercial Banking, Branch Banking Vs Unit Banking, Group Banking, Chain Banking, Mixed Banking, Clearance Banks, Balance sheet, Rules of Management of funds, Assets, Liabilities, Financial Intermediaries, Bank Failures, Deposit Insurances, Merchant Banking, Nationalisation of Banks in India : An overview of Changes after Nationalisation.

#### **Semestr II**

##### **Banking 2**

**Module 1:**

Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary Resources, Loans, Practices in Lending, Credit Circulation, Limitations.

**Module 2:**

Accounts: Joint accounts, Partnership, Company guarantees, Individual Surety, Joint and Several Guarantee, Security, Exchange Securities, Life Policies, Payment and Collections of Cheques, Dishonouring, Negotiability, Crossing and Account payee.

#### **Semester III**

##### **Banking 3**

**Module 1:**

Central Banking: Evaluation Functions, Rules of note issue system in India, Bankers' Bank, Reserve Functions, Statutory Minimum, Banker to Government, Custodian Notions, Reserve, Credit Control, Objectives, Methods, Limitations, Lender of the last resort, Bank Rate, Open market operations, Exchange control, Reserve Bank.

**Module 2:**

Development Banks in India : IFCI, SFCS, IDBI, NIDC, NSIC, SIDBI: Capital market in India, Emerging trends, Mutual Funds. New Generation Banks.

#### **Semester IV**

##### **Banking 4**

**Module 1:**

Agricultural Banking, Land Development Banks, Co-operative Banks, Regional Rural Banks, NABARD.

**Module 2:**

37

Financial Liberalisation and its impacts. Recommendations of Narasimhan Committee – Financial Crisis and the Role of Public Sector Banks.

**Suggested Readings:**

6. R.S. Sayers, Modern Banking. – Mac millon
7. M.D. Decock, Central Banking.
8. S.K. Basu, Banking in India.
9. Milnes Holdern, Studies in Practical Banking.

## **IV. Mathematical Tools for Economics**

### **Semester I**

#### **Mathematical Tools for Economics 1**

##### **Chapter 1 : Theory of Sets**

1.1 Kinds of sets, 1.2 Operations of sets, 1.3 Venn Diagrams, 1.4 Cartesian Products, 1.5 Relations – Types of Relations, 1.6 Functions, 1.7 Total and partial ordering..

##### **Chapter 2 : Fundamental of Linear Algebra - Matrices**

The Role of Linear Algebra, 2.2 Definitions and terms, 2.3 Addition and Subtraction of Matrices, 2.4 Scalar Multiplication, 2.5 Vector Multiplication, 2.6 Multiplication of Matrices, 2.7 Commutative, Associative and Distributive Laws in Algebra. 2.8 Identity and Null Matrices 2.9

Matrix Expression of a Set of Linear Equations. 2.10 Row Operations, 2.11 Augmented Matrix, 2.12 Gaussian Method of Solving Linear Equations.

##### **Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

##### **Additional Readings**

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)  
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note : This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be

confined to intermediary level.

### **Semester 2**

#### **Mathematical Tools for Economics 2**

##### **Chapter 1 : Matrix Inversion**

1.1 Determinants and Nonsingularity, 1.2 Determinants, 1.3 Properties of a Determinant, 1.4 Minors and Cofactors, 1.5 Cofactor and Adjoint Matrices, 1.6 Inverse Matrices 1.7 Solving Linear Equations with the Inverse, 1.8 Cramer's Rule for Matrix Solutions, 1.9 The Gaussian Method of Inverting a Matrix.

##### **Chapter 2 : Special Determinants and Matrices in Economics**

The Jacobian, 2.2 The Hessian, 2.3 The Discriminant, 2.4 Higher-Order Hessians, 38  
2.5 The Bordered Hessian for Constrained Optimization 2.6 Derivation of a Marshallian Demand

Function 2.7 Application in Input-output Analysis.

##### **Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

##### **Additional Readings**

1 Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)  
2 Taroyamane, Mathematics for Economists (Prentice Hall)

Note : This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be

confined to intermediary level.

### **Semester 3**

#### **Mathematical Tools for Economics 3**

##### **Chapter 1: Basic Mathematical Concepts**

Exponents, 1.2 Polynomials, 1.3 Factoring, 1.4 Equations : Linear and Quadratic, 1.5 Completing the Square, 1.6 Simultaneous Equations, 1.7 Functions, 1.8 Graphs, Slopes, and

Intercepts, 1.9 Graphs of Nonlinear Function

##### **Chapter 2 : Economic Applications of Graphs and Equations**

Isocost Lines, 2.2 Supply and Demand Analysis, 2.3 Production – Possibility Frontiers

##### **Chapter 3 : The Derivative And The Rules of Differentiation**

3.1 Limits, 3.2 Continuity, 3.3 The Slope of a Curvilinear Function, 3.4 The Derivative, 3.5 Differentiability and Continuity 3.6 Derivative Notation 3.7 Rules of Differentiation 3.8 Higher-Order Derivatives 3.9 Implicit Differentiation.

*Uses in Mathematics and Economics:* 3.10 Increasing and Decreasing Functions,

3.11 Concavity and Convexity, 3.12 Relative Extreme, 3.13 Inflection Points, 3.14 Curve Sketching, 3.15 Optimization of Functions.

**Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

**Additional Readings**

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)  
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note : 1. This course is a complementary course and is intended for students of B.A. Economics

course who may not have sound knowledge of Mathematical concepts. Hence questions may be

confined to intermediary level. 2. Differentiation of Trigonometric functions, logarithmic functions

etc are not to be included.

**Semester 4**

**Mathematical Tools for Economics 4**

**Chapter 1 : Calculus and Multivariable Functions**

Functions of Several Variables and Partial Derivatives, 1.2 Rules of Partial Differentiation, 1.3 Second-Order Partial Derivatives, 1.4 Optimization of Multivariable Functions, 1.5 Constrained Optimization with Lagrange Multipliers, 1.6 Significance of the Lagrange Multiplier, 1.7 Differentials, 1.8 Concept of Total and Partial Differentials, 1.9 Concept of Total Derivatives, 1.10 Implicit and Inverse Function Rules, 1.11 Application of Calculus of

Multivariable Functions in Economics.

**Chapter 2 : Integral Calculus : The Indefinite Integral**

Integration, 2.2 Rules of Integration, 2.3 Initial Conditions and Boundary Conditions, 2.4 Integration by Substitution, 2.5 Integration by Parts, 2.6 Economic Applications.

**Chapter 3 : Integral Calculus : The Definite Integral**

3. Area under a Curve, 3.2 The Definite Integral, 3.3 The Fundamental Theorem of Calculus, 3.4 Properties of Definite Integrals 3.5 Area between curves

**Chapter 4 : Introduction to Differential Equations and Difference Equations**

Definitions and Concepts of Differential Equations, 4.2 General Formula for First-Order Linear Differential Equations, 4.3 Definition and Concepts of Difference Equations, 4.4 General Formula for First – Order Linear Difference Equations.

**Basic Reading**

1. Edward T. Dowling, Introduction to Mathematical Economics (2<sup>nd</sup> Edition), Schaum's Outline Series, McGRAW-HILL.

**Additional Readings**

1. Chiang A C, Fundamentals Methods of Mathematical Economics, (McGraw Hill)  
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note : 1. This course is a complementary course and is intended for students of B.A. Economics

course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level. 2. Differentiation / Integration of Trigonometric functions, logarithmic functions etc are not to be included.

**Economics -Course -Credit Semester ( C C S) system**

Semester Course title Hrs./week Credit

I

Common course 1 English 4 3

Common course 2 English 5 3

Common course 3 Second language 4 4

Core course 1 Micro Economics-I 6 4

Complementary I Sub 1 3 2

Complementary 1 Sub 2 3 2

II

Common course 4 English 5 4

Common course 5 English 4 4

Common Course 6 English 4 4

Core Course 2 Macro Economics-I 6 4

Complementary 2 Sub 1 3 2

Complementary 2 Sub 2 3 2

III Common course 7 Second language 5 4  
 40  
 Common course 8 Second language 5 4  
 Core Course 3  
 Quantitative Methods for Economic  
 Analysis -I  
 5  
 4  
 Core Course 4 Micro Economics- I 4 4  
 Complementary 3 Sub1 3 2  
 Complementary 3 Sub2 3 2  
 IV  
 Common course 9 English 5 4  
 Common Course 10 Second language 5 4  
 Core Course 5  
 Quantitative Methods for Economic  
 Analysis -2  
 5  
 4  
 Core Course 6 Macro Economics- II 4 4  
 Complementary 4 Sub1 3 2  
 Complementary 4 Sub2 3 2  
 V  
 Core Course 7 Computer Application 5 4  
 Core Course 8 Indian Economy 5 4  
 Core Course 9 Economic Thought 5 4  
 Core Course 10 Kerala Economy 5 4  
 Elective course (For Economics  
 students)  
 Gender Economics/ Health  
 Economics/ Economics of business  
 and finance  
 3  
 2  
 Course work/project work/ visit Starts the project 2 -  
 VI  
 Core Course 11  
 Mathematical Economics and Basic  
 Econometrics  
 5  
 4  
 Core Course 12 Public finance 5 4  
 Core Course 13 International economics 5 4  
 Core Course 14  
 Political Economy of Development and  
 planning  
 5  
 4  
 Open course 2 (For non economics  
 students)  
 Basic Principles of Economics/  
 Financial Business/ Banking  
 3  
 2  
 Course work/project work/ visit  
 Complete the projects 2  
 4