

**CHOICE BASED CREDIT SEMESTER SYSTEM FOR  
UNDERGRADUATE PROGRAMME**

**OF**

**ST: JOSEPH'S COLLEGE (AUTONOMOUS)**



**SCHEME AND SYLLABUS  
FOR  
B.A.ECONOMICS  
(2018-19 Admission onwards)**

## Contents

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
1.	Introduction	3
2.	List of Board Members	5
3.	Aims and Objectives	6
4.	Course Structure	7
5.	Course Code	7
6.	Scheme of the Programme	7
7.	Core Courses	10
8.	Complementary Courses	10
9.	Open Courses	11
10.	Elective Courses	11
11.	Assessment and Evaluation	11
12.	External Examination-Question Pattern	13
13.	Study Tour	14
14.	Project Guidelines	14
15.	Structure of Project Report	16
16.	Detailed Syllabi – Core Courses	17
17.	Detailed Syllabi – Complementary Courses	53
18.	Detailed Syllabi – Open Courses	73
19.	Detailed Syllabi – Elective Courses	77

**ST. JOSEPH'S COLLEGE(AUTONOMOUS) IRINJALAKUDA**

**Board of Studies in Economics (UG)  
Revised Curriculum of Undergraduate Programme in Economics  
Effective from 2018-19 Admissions**

Economics is an integral part of a well-rounded liberal arts education and has emerged as one of the most sought after subjects of study in social sciences. Economics is about choice and is at the heart of all decision-making. Individuals, businesses and governments are all faced with making choices in situations where resources are scarce and as a result economics is applicable in a wide range of fields including business, finance, administration, law, local and national government and indeed most aspects of everyday life. Increasingly, policy debate in all areas is being cast in economic terms and understanding most current issues requires an understanding of economics.

Economics is valuable not only for the topics it studies, but also for its methods of analysis. The processes economists use in constructing models, analyzing arguments and testing empirical predictors against available evidence develop several important skills. Employers are particularly keen on graduates with good analytical and problem solving skills, which are emphasized in Economics teaching.

Economics is a field of growing importance as preparation for both a variety of careers and programs of advanced study. The discipline occupies a strategic place among the social sciences, and is important to the study of the humanities as well. Many careers which require the understanding and analysis of contemporary events will also be enhanced by the study of economics. These include such professions as law, journalism, public policy, diplomacy, education, environmental science, medical administration, and international affairs. Since economic institutions are an important element of any larger social or political system, and since major social and political changes are often influenced by economic forces, an understanding of economics is important for mastery of these related disciplines. Economics provides a better understanding of the economic and public policy environment in which virtually every profession will be pursued. Hence, economics courses should be an integral part of any undergraduate course of study.

Regular updation 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. Accordingly, timely modifications and updations are to be made in the curriculum in tune with latest developments in economic thought, techniques and methods of analysis and the rapidly changing socio-economic environment.

The revised syllabus is the outcome of a series of sittings of Board members and consultations with the faculty members handling various papers and experts in respective areas. The draft syllabus has been sent to the faculty in different colleges for their expert opinion and suggestions. Valuable comments and suggestions given by them have been incorporated in the syllabi before finalizing it. I express my sincere gratitude to the members of the Board of Studies in Economics, experts from different fields and economics faculty of various colleges for the help and support extended by them in realizing it.

**Dr. Chacko Jose P**  
**Chairman, Board of Studies in Economics**  
**St. Joseph's college(autonomous) irinjalakuda**

## MEMBERS OF BOARD OF STUDIES

Sl No.	Name	Address	Email Id	Mobile
1.	Dr Chacko Jose P (Chairman)	Associate Professor & Head, Dept. of Economics, S H College, Chalakkudy	<a href="mailto:chackojosep@gmail.com">chackojosep@gmail.com</a>	9447033292
2.	Beena C A	Assistant Professor, Dept. of Sociology, St. Joseph's College, Irinjalakuda	<a href="mailto:beenathomaskollannur@gmail.com">beenathomaskollannur@gmail.com</a>	9495246399
3.	Dr Valsa John C	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:valsaraju14@gmail.com">valsaraju14@gmail.com</a>	9495765117
4.	Sari T C	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:sari.tc9@gmail.com">sari.tc9@gmail.com</a>	9605310218
5.	Amrutha Dharman	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:amruthadharman@gmail.com">amruthadharman@gmail.com</a>	8136992079
6.	Akhila N	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:akhilamidhu@gmail.com">akhilamidhu@gmail.com</a>	
7.	Anisha N G	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:anishaanil027@gmail.com">anishaanil027@gmail.com</a>	9656967280
8.	Praseetha V P	Dept. of Economics , St. Joseph's College, Irinjalakuda	<a href="mailto:vppraseetha10@gmail.com">vppraseetha10@gmail.com</a>	9744594702
9.	Dr. Vimala M	Associate Professor & Head, Dept. of	<a href="mailto:vimalamaikkara@gmail.com">vimalamaikkara@gmail.com</a>	9495740051

		Economics ,Vimala College, TCR		
10.	Bose P R	Associate Professor & Head, Dept. of Economics, Christ College Irinjalakuda	<a href="mailto:boserapheal@gmail.com">boserapheal@gmail.com</a>	9495082946
11.	Jessy John K (Alumnae)	Assistant Professor, Dept. of Economics, St. Aloysius College , Tcr	<a href="mailto:Jessyjohn2022@gmail.com">Jessyjohn2022@gmail.com</a>	8129333655
12.	Dr. Nirmala Padmanaban	Associate Professor & Head, Dept. of Economics, St. Tresas College, Ernakulam	<a href="mailto:nirmalap1@gmail.com">nirmalap1@gmail.com</a>	9895037200
13.	Dr Sara Neena T T	Associate Professor & Head, Dept. of Sociology, Vimala College, TCR	<a href="mailto:Sneej11@gmail.com">Sneej11@gmail.com</a>	9447672553
14.	Dr. K P Mani (Nominated by the VC)	Associate Professor & Head, Dept. of Economics, Dr. John Mathai Centre, University of Calicut	<a href="mailto:drmanikp@yahoo.com">drmanikp@yahoo.com</a>	9847235070
15.	Mini P R (Rep. Industry)	Asst. Industrial officer , Civil station Irinjalakuda	<a href="mailto:minirijil@gmail.com">minirijil@gmail.com</a>	9744152180

## **Revised Curriculum of BA Programme in Economics Effective from 2018-19 Admissions**

### **Aims and Objectives**

Keeping pace with the rapid changes that are taking place in economic and political spheres across the globe, the subject of Economics is undergoing swift changes, which warrants constant updating of the curriculum. The principal aims and objectives of BA Programme in economics are:

- Imparting knowledge of fundamental concepts and theoretical propositions
- An understanding of the methodology by which economic ideas are framed, tested and modified.
- To provide the students an opportunity to take up a career in economics and related areas.
- An understanding of the economic issues of national and international importance and realize the dynamics behind them.
- To develop the capacity to analyze the socio-political and economic issues in the language of an economist.
- To provide an opportunity to understand how the economic policies of the government and governmental institutions affect the common people.
- To provide an opportunity to venture into research in economics and there by contribute to the creation of knowledge.
- An understanding of the institutions – social, political and economic, that influence economic issues.

### **BA Programmes in Economics**

The board is presenting revised syllabus for four BA Economics Programmes with different specializations:

1. BA Economics (Regular)
2. BA Development Economics
3. BA Foreign Trade Programme
4. BA Economics with Islamic Finance

While most of the core papers remain part of all the programmes, there are some additional courses depending upon the specializations. While BA Development Economics has some additional courses related to development issues, BA Foreign Trade Programme specializes in foreign trade practices. BA Economics with Islamic Finance is a new programme with specialization in Islamic finance. All the three programmes (BA Development Economics; BA Foreign Trade Programme and BA Economics with Islamic Finance) are equivalent to BA Economics (Regular) programme for the purpose of employment and higher studies.

## course Structure

The Programme consists of the following courses:

- a) Common Courses      b) Core Courses      c) Complementary Courses  
 d) Open Course          e) Project

Altogether there will be 34 courses in the Programme with 14 Core Courses, 10 Common Courses, 2 Complementary Courses (spread over 4 semesters), 1 Elective course and 1 Open Course. Open courses are the courses offered by a department to the students of other departments. Students can select a course of their own choice offered by other departments. The Project work/visit is to be handled by the Economics faculty in each college. A detailed break up of courses is presented in table 1.

## Course Code

Each Course shall have a unique alphanumeric code number. The first three letters of the code denotes the subject, then the semester number (1 to 5) in which the course is offered, the code of the course (A – Common Course, B – Core Course, C – Complementary Course, D – Open Course and E – Elective Course) and the serial number of the course. For example, ECO3 B04 represents Economics core course offered in the third semester and serial number of the core course is 4.

**ECO** - The subject code of courses common for all BA Economics programmes.

**DEC** - The subject code of the specialization courses offered for BA Development Economics.

**EFT** - The subject code of the specialization courses offered for BA Foreign Trade Programme

**EIF** – The subject code of the specialization courses offered for BA Economics with Islamic Finance

**Table 1. Scheme of BA Economics Programme**

Semester	Course	Course Code	Title of Paper	Hours per Week	Credits	Max. Marks		
						IE*	EE**	Total
I Semester	Common I	A01		4	4	20	80	100
	Common II	A02		5	4	20	80	100
	Common III	A03		4	4	20	80	100
	Core 1	ECO1 B01	Microeconomics - I	6	5	20	80	100
	Complementary I			3	2			
	Complementary II			3	2			

* Internal Evaluation, ** External Evaluation								
<b>II Semester</b>	Common IV	A04		5	4	20	80	100
	Common V	A05		4	4	20	80	100
	Common VI	A06		4	4	20	80	100
	Core 2	ECO2 B02	Microeconomics - II	6	5	20	80	100
	Complementary I			3	2	20	80	100
	Complementary II			3	2	20	80	100
<b>III Semester</b>	Common VII	A07		5	4	20	80	100
	Common VIII	A08		5	4	20	80	100
	Core 3	ECO3 B03	Quantitative Methods for Economic Analysis - I	5	4	20	80	100
	Core 4	ECO3 B04	Modern Banking and Insurance	4	4	20	80	100
	Complementary I			3	2			
	Complementary II			3	2			
<b>IV Semester</b>	Common IX	A09		5	4	20	80	100
	Common X	A10		5	4	20	80	100
	Core 5	ECO4 B05	Quantitative Methods for Economic Analysis - II	5	4	20	80	100
	Core 6	ECO4 B06	Computer Application for Economic Analysis	4	4	20	80	100
	Complementary I			3	2	20	80	100
	Complementary II			3	2	20	80	100
	Core 7	ECO5	Macroeconomics - I	6	4	20	80	100

<b>V Semester</b>		B07						
	Core 8	ECO5 B08	India's Economic Development: National and Regional **	6	4	20	80	100
	Core 9	ECO5 B09	Economics of Capital Market	5	4	20	80	100
	Core 10	ECO5 B10	International Economics	5	4	20	80	100
	Open (To choose 1 out of 3)	ECO5 D01 ECO5 D02  ECO5 D03	Economics in Everyday Life International Trade and Finance  Banking	2	2	10	40	50
	Project Work		To be continued in VI <sup>th</sup> Sem	1				
<b>VI Semester</b>	Core 11	ECO6 B11	Macroeconomics - II	5	4	20	80	100
	Core 12	ECO6 B12	Mathematical Economics	5	4	20	80	100
	Core 13	ECO6 B13	Public Finance	5	4	20	80	100
	Core 14	ECO6 B14	Development Economics	5	4	20	80	100
	Elective (To choose 1 out of 3)	ECO6 E01 ECO6 E02 ECO6 E03	Environmental Economics Applied Theory of Markets Economics of Business and Finance	3	2	20	80	100
	Project Work	ECO6 B15 (Pr)	Individual/Group activity	2	4	10	40	50
<b>Total Credits</b>					<b>120</b>			

\*\* A compulsory study tour is recommended as part of the paper entitled "India's Economic Development- National and Regional" in the Fifth Semester and the tour report should be submitted to the Head of the Department soon after the tour.

## **CORE COURSES**

- **ECO1 B01 - Micro economics I**
- **ECO2 B02 - Micro economics II**
- **ECO3 B03 - Quantitative Methods for Economic Analysis I**
- **ECO3 B04 – Modern Banking and Insurance**
- **ECO4 B05 - Quantitative Methods for Economic Analysis II**
- **ECO4 B06 – Computer Application for Economic Analysis**
- **ECO5 B07 - Macro economics I**
- **ECO5 B08 - India's Economic Development: National and Regional**
- **ECO5 B09 - Economics of Capital Market**
- **ECO5 B10 – International Economics**
- **ECO6 B11 - Macro economics II**
- **ECO6 B12 – Mathematical Economics**
- **ECO6 B13 – Public Finance**
- **ECO6 B14 – Development Economics**
- **ECO6 B15 – Project**

## **Complementary Courses**

The following complementary courses are suggested with the option for choice (**two complementary courses can be selected**). The syllabus for complementary courses of sister departments are prepared by the respective Boards of studies.

- **History**
- **Political Science**
- **Sociology**
- **Essentials of Economics (C01) (For Non-Economics Programmes)**
- **Mathematical tools for Economics (C01)**
- **Co-operation (C02)**
- **Banking (C03)**

## **Open Courses**

During the V<sup>th</sup> Semester three Open courses are offered to the students of other departments. Departments can choose any one course from the three listed below.

- **ECO5 D03 - Banking**

## **Elective Courses**

During VI<sup>th</sup> Semester three elective courses are offered for BA Economics Programme. Colleges can choose any one course from the three listed below.

- **ECO6 E01 – Environmental Economics**
- **ECO6 E02 – Applied Theory of Markets**
- **ECO6 E03 – Economics of Business and Finance**

## **Assessment and Evaluation**

Assessment and evaluation of the course shall be according to the CUCBCSS UG-2014 Regulations of the University of Calicut. As per the regulations evaluation of the course shall contain two parts: Internal Evaluation and External Evaluation. The Internal examination shall have a weightage of 20% and the remaining 80% for external evaluation. External Evaluation is done by the University through End Semester examination through indirect grading system based on 7-point scale (A<sup>+</sup>, A, B, C, D, E or F), as suggested by the Regulations 2014.

Internal assessment is done through the system of continuous assessment of the following four components, with a maximum of 20 marks, split up as presented in table 2.

**Table 2. Percentage Distribution of Internal Marks**

<b>Components</b>	<b>Marks</b>
<b>Attendance</b>	<b>25 %</b>
<b>Assignment, Seminar, Viva- Voce</b>	<b>25 %</b>
<b>Test Paper</b>	<b>50 %</b>

Attendance of each course will be evaluated and marks assigned as per the norms presented in table 3.

**Table 3. Percentage Distribution of Marks for Attendance**

<b>Attendance</b>	<b>Marks</b>
<b>Above 90%</b>	<b>100%</b>
<b>85-89%</b>	<b>80%</b>
<b>80-84%</b>	<b>60%</b>
<b>76-79%</b>	<b>40%</b>
<b>75%</b>	<b>20%</b>

Both internal and external evaluation is carried out using the mark system. The grading on the basis of total marks scored in internal and external examinations will be done by the University for each Course and for each semester, using a 7- point scale indirect grading system as presented in table 4.

**Table 4. Distribution of Marks, Grades and Grade Points**

<b>Percentage of Marks</b>	<b>Grade</b>	<b>Interpretation</b>	<b>Grade Point Average</b>	<b>Range of Grade Points</b>	<b>Class</b>
90 and above	A+	Outstanding	6	5.5 - 6	First Class with Distinction
80 – below 90	A	Excellent	5	4.5 - 5.49	
70 – below 80	B	Very Good	4	3.5 – 4.49	First Class
60 – below 70	C	Good	3	2.5 – 3.49	
50 – below 60	D	Satisfactory	2	1.5 – 2.49	Second Class
40 – below 50	E	Pass/Adequate	1	0.5 – 1.49	Pass
Below 40	F	Failure	0	0 – 0.49	Fail

: Best of the two assignments is considered per course.

: The student has to take a minimum of one seminar per course.

: A minimum of two class tests are to be attended. The grades of best two tests are to be taken.

: The minimum required percentage of attendance for appearing in the various semester examination is fixed as 75.

### External Examination: Question Pattern

The questions of external evaluation should aim at assessment of knowledge, standard application of knowledge and application of knowledge in new situations. Question paper should be a judicious mix of objective type, short answer type, short essay type/problem solving type and long essay type questions. Different types of questions shall be given different weights to quantify their range. The question setter shall submit a detailed scheme of evaluation along with the question paper.

- All examinations will have duration of 3 hours, except open course, for which examination will be of 2 hours duration. Maximum marks for all courses will be 80 except open course, for which maximum marks will be 50.
- Each question paper will have four parts A, B, C and D
- Part A contains 12 objective type questions for which the candidate has to answer all the questions. Each question carries  $\frac{1}{2}$  marks.
- Part B contains twelve very short answer type questions and the candidates have to answer ten questions. Each question carries two marks.
- Part C contains eight short essay/problem type questions and the candidates have to answer six questions. Each question carries five marks.
- Part D contains four essay type questions and the candidates have to answer two questions. Each question carries 12 marks.

**Table 5. Question Pattern for External Evaluation**

Type of Question	Questions to be Given	Questions to be Answered	Marks for each Question	Total Marks
Objective Type	12	12		6
Very Short Answer	12	10	2	20
Short Essay	8	6	5	30
Essay	4	2	12	24
Total	36	30		80

**Table 6. Question Pattern for External Evaluation (Open Course)**

Type of Question	Questions to be Given	Questions to be Answered	Marks for each Question	Total Marks
Objective Type	10	10		5
Very Short Answer	12	10	2	20
Short Essay	6	3	5	15
Essay	2	1	10	10
Total	36	30		50

## **Study Tour**

A compulsory study tour is recommended as part of the paper entitled "India's Economic Development- National and Regional" in the Fifth Semester and the tour report should be submitted to the Head of the Department soon after the tour.

### **Project - EC6 B15 (Pr)**

As part of the requirements for BA Programme every student must do a project either individually or as a group, under the supervision of a teacher. Project work is meant for providing an opportunity to approach and study a problem in a systematic and scientific manner. It provides them an opportunity to apply the tools they have studied and learn the art of conducting a study and presenting the report in a structured way. The report of the project, completed in every respect, is to be submitted to the department for valuation by the examiners appointed by the University.

### **PROJECT GUIDELINES:**

1. Project work may be done either individually or as a group of students not exceeding 5 in number.
2. The topic of the project should be on economic issues either theoretical or case study type.
3. Students should be properly oriented on the methodology of conducting a study during the Vth Semester, making use of the hours allotted for the purpose.
4. The Project work should be completed by the end of the VI semester and the report should be submitted to the Department before 31<sup>st</sup> March of the year concerned.
5. The project report should be either printed or typed in English.
6. A copy of the project report in English (printed or typed) should be submitted by the student/team on or before 31 March of the year concerned.
7. The valuation of the project will be done at two stages:
  - a. Internal evaluation (supervising teachers will assess the project and award grades)
  - b. External evaluation (The team will comprise of an external examiner appointed by the University and the HOD of the institution concerned or his nominee)
  - c. A Viva voce related to the project work will also be conducted by the external evaluation team. All candidates should undergo the Viva voce test individually.
  - d. Grades will be awarded to candidates combining the internal grade, team grade and Viva voce grade.
8. Length of the project report - 20 to 35 typed pages (Paper A4, Times New Roman, Font size 12, line spacing 1.5). The report may be organized in 3 chapters(minimum).The use of simple statistical tools in data analysis may be encouraged.
9. Project evaluation and the Viva voce should be conducted immediately after the completion of the regular classes /written examination.
10. The chairman of the VI semester exam should form and coordinate the evaluation teams and their work.

11. The project external evaluation should be completed before the commencement of the centralized valuation.
12. External Examiners will be appointed by the University from the list of VI semester Board of Examiners in consultation with the Chairman of the Board.
13. Student for viva-voce are compulsory for internal evaluation.
14. The internal to external is to be taken in the ration of 1:4. Assessment of different components may be done as given below.

**Table 5. Details of the Assessment of Project Report**

<b>Internal (20% of total)</b>		<b>External (80% of total)</b>	
<b>Component</b>	<b>% of Marks</b>	<b>Component</b>	<b>% of Marks</b>
Punctuality	20	Relevance of the Topic, Statement of Objectives, Methodology (Reference/Bibliography) Statement of Objectives, Methodology	20
Use of Data	20	Presentation, Quality of Analysis/Use of Statistical Tools, Findings and recommendations.	30
Scheme/Organization of Report	30	Viva-voce	50
Viva-voce	30		

### **Basic Ingredients of a Project Design**

The project work can be designed by considering the following elements.

1. Selection of a Topic
2. Pilot Survey – a trial run of questionnaire / interviews
3. Significance / relevance of the Study
4. Review of Related Literature
5. Formulation of Research Questions
6. Research Objectives (Minimum 2)
7. Coverage (Universe / Sample & period of study)
8. Data source (Primary/Secondary)
9. Methods of Analysis i.e., Tools and Techniques

10. Limitations of the study
11. Chapter outline
12. Data Analysis/Result Chapter(s)
13. Conclusion

### **Structure of the Report**

The report should be organized in the following sequence:

- i) Title page
- ii) Name of the candidate, Name and designation of the supervising teacher
- iii) Declaration of the student and certificate of the supervising teacher
- iv) Acknowledgements
- v) List of tables, List of figures, table of contents
- vi) Introduction
- vii) Significance of the study
- viii) Related works, if any
- ix) Objectives, methodology and data sources
- x) Chapter scheme
- xi) Main text, summary conclusions and recommendations
- xii) Bibliography

# **CORE COURSES**

## **Detailed Syllabi**

### **Semester I**

**Course Category: Core Course 1**  
**Course Title and Code: Micro Economics – I, ECO1 B01**  
**No. of Credits: 5**  
**No. of Contact Hours: 108**

### **Micro economics - I**

Micro economic theory presents some of the basic analytical techniques or tools of analysis of economics. It has been one of the most important courses in all economics business curricula.

This Course is designed to provide basic understanding of the behavior of individual economic agents – Consumer, Producer. It will introduce the students the basic ideas and tools that will be utilized throughout I the other courses of the degree programme.

**Module I: Introduction to Micro Economics** – Nature and scope of micro economics – Microeconomic models and methodology – Positive and normative analysis - induction and deduction, Value judgements.

**Ref:** Dominic Salvatore Micro Economics

**Module II : Price Determination in a Competitive Market** - Demand, supply and equilibrium - Market demand curve –market supply curve – Change in Market Equilibrium – Functions of prices - changes in demand and supply – Extension and contraction in demand - Increase and Decrease in demand - Elasticity of demand and supply - Price Elasticity of demand – Point and Arc method – Price elasticity and total expenditure – Factors determining price elasticity - TR, MR and price Elasticity – Income elasticity and its interpretation- Cross elasticity - substitutes and complementary goods

#### **Assignment/Seminar Topic-**

1. Algebraic Explanation to market Equilibrium
2. Give estimated price income and cross elasticities for selected commodities and indicate from the price elasticities whether demand is elastic or inelastic, from the income elasticity whether the commodity is a luxury, a necessity or an inferior good.

**Ref:** 1. Dominic Salvatore – Schaum's outline series, Microeconomic Theory

2. Watson and Getz -Price Theory and its Uses

**Module III: Theory of consumer behavior** – Utility - Cardinal Versus Ordinal utility – Consumer Equilibrium under cardinal utility - Consumer behavior under ordinal utility - assumptions – Indifference curve - properties - MRS – Equilibrium of the consumer under ordinal utility – Budget constraints - Budget line - Income effect - Engel curve - Normal good; inferior good – Consumer's response to price changes - Price effect and utility maximization – Derivation of individual demand curve for normal good – Decomposition of Price effect into income effect and substitution effect – Hicksian and Slutsky's methods – Normal, inferior and Giffen goods – Application of Indifference Curves - Theory of Revealed Preference – Revealed Preference axiom - Consumer surplus - Marshall and Hicks.

**Assignment/Seminar Topic-**

Evaluation of alternate Government policies by using indifference curve analysis

**Ref:** Koutsoyiannis . A Modern Micro Economics

**Module IV: Theory of Production** –Production Function-short run versus long run production function – TP, AP, MP and their interrelationships - Production with one variable input - Law of variable proportions - Production with two variable input - Returns to scale - Iso-quants - properties - MRTS – Elasticity of substitution - Isocost line – Least cost input combination - Producer's equilibrium - Expansion path and long run cost curves – Cobb-Douglas production function (concept only)

**Assignment/Seminar Topic:** Graphical presentation of the Returns to scale for a homogeneous production function.

**Ref:** 1. Dominic Salvatore - Micro Economics

2. Koutsoyiannis . A, Modern Micro Economics, Page-79.

**Additional Readings:**

1. Robert .S Pindyck and Daniel L. Rubinfeld (2009)- Microeconomics seventh edition, Pearson Education
2. H.R Varian Intermediate Microeconomics- A Modern Approach.
3. Walter Nicholson and Christopher Snyder (2010 )- Theory and applications of intermediate microeconomics' 11<sup>th</sup> edition, South Western, Cengage learning

**N. B: Seminar/ Assignment Topics are for internal evaluation only**

## **Semester II**

**Course Category: Core Course 2**  
**Course Title and Code: Micro Economics – II, ECO2 B02**  
**No. of Credits: 5**  
**No. of Contact Hours: 108**

### **Micro economics - II**

This part of the syllabus is designed to introduce fundamental market concepts and structures. The objective of the course is to apply the principles Micro economic analysis to the decision making of firms and market.

#### **Module I: Theory of Costs**

Explicit and implicit costs, opportunity cost, private cost, social cost, economic cost, accounting cost, sunk cost, fixed and variable cost, marginal and average cost -Short run and Long run cost curves - Modern theory of costs - Short- run costs - AFC, AVC, ATC – Longrun L shaped cost curves.

**Seminar/assignment topic:** Traditional theory of costs - Cost concepts- Geometry of unit cost curves -relation between AFC, AVC, AC and MC graphically.

**Ref:** 1. Koutsoyiannis. A , *Modern Microeconomics*, Chapter – 4  
2. Dominik Salvatore, *Microeconomic Theory-Schaums outline series*

#### **Module II: Market structure: Perfect Competiiton**

Perfect competition –chareteristics – Price determination in the market period - Short run Equilibrium – shut down point - Longrun equilibrium of a firm and industry – Constant, increasing and decreasing cost industries – Welfare effects of goveremnt intervention – Impact of a tax or subsidy.

#### **Module III: Monopoly**

Monopoly – Sources of monopoly – AR and MR curve of a monopolist - Short run and Long run equilibrium – Supply curve of a monopolist – The multiplant firm – Monopoly power – measuring monopoly power – Lerner Index - social cost of monopoly – Regulation of monopoly - Price discrimination – first degree, second degree and third degree – International price discrimination and dumping –Two part tariff, tying and bundling – Peakload pricing - Monopsony – Bilateral monopoly.

**Seminar/assignment topic:** Some applications of market structure, Efficiency and Regulation

**Ref:** 1. Koutsoyiannis, *A Modern Microeconomics*, Chapter 5, 6, 7

2. Watson and Getz, *Price Theory and its uses*
3. Dominik Salvatore, *Principles of Microeconomics*

#### **Module IV: Monopolistic Competition and Oligopoly**

Monopolistic competition and Oligopoly – Features of monopolistic competition – Short run and long run equilibrium - Product differentiation and selling costs – Oligopoly - Characteristics – Collusive versus non-collusive oligopoly – Cournot model – Kinked demand curve model - Cartel and price leadership

- Ref:** 1. Koutsoyiannis, *A Modern Microeconomics*, Chapter 5, 6, 7  
2. Watson and Getz, *Price Theory and its uses*  
3. Dominik Salvatore, *Principles of Microeconomics*

#### **Module V: Pricing and Employment of Inputs**

Marginal Productivity theory of input demand – Competitive factor markets - Demand curve of the firm for one variable input – Demand curve of the firm for several variable inputs - Market demand curve for an input - Supply of inputs to a firm – The market supply of inputs – Equilibrium in a competitive factor market – Factor market with monopoly power – Factor market with monopsony power.

- Ref:** 1. Koutsoyiannis. A, *Modern Microeconomics*  
2. Dominik Salvatore, *Micro economic Theory*, Schaums Outline series, Chapter - 13

#### **Additional Readings:**

1. Robert .S Pindyck and Daniel L. Rubinfeld (2009)- *Microeconomics seventh edition*, Pearson Education
2. H.R Varian *Intermediate Microeconomics- A Modern Approach*.
3. Walter Nicholson and Christopher Snyder (2010 )- *Theory and applications of intermediate microeconomics* 11<sup>th</sup> edition, South Western, Cengage learning

**N. B: Seminar/ Assignment Topics are for internal evaluation only**

### **Semester III**

**Course Category: Core Course 3**

**Course Title and Code: Quantitative Methods for Economic Analysis – I,  
ECO3 B03**

**No. of Credits: 4**

**No. of Contact Hours: 90**

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

#### **Introduction**

Students of economics should have sound quantitative skills to collect, analyse and interpret empirical data. They also require these skills for advanced studies in quantitative economics. Quantitative skills have become an essential toolkit for most branches of economics.

#### **Objectives**

This course is intended to provide students an introduction to quantitative 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.

#### **Learning Outcome**

Students are expected to acquire statistical skills that are necessary for further study in most branches of economics. However, it should be kept in mind that the students who study this course have limited quantitative skills. Their limitations and peculiarities should be considered while preparing questions paper, particularly for problems.

#### **Syllabus**

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

Exponents and Logarithms - Equations - Types and solutions of Linear, Quadratic and Simultaneous Equations up to three unknowns.

**Module II - Basic Matrix Algebra:** Matrices-Types, Matrix manipulations and their rules, Order of Matrix, Rank of matrices, Transpose of Matrix-Determinants up to order  $3 \times 3$ - Properties and Value of determinant, Minor, Cofactor and inverse, Solving Linear Equations with the inverse. Cramer's Rule for solving linear equations.

##### **Module 3 - Functions and Graphs**

Functions-types of function and its application in economics - Rectangular Co-ordinate System and graphs of functions - Slope and Intercept - Equations of straight lines.

#### **Module 4 - 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.Measures of Dispersion: Absolute and Relative measures of Dispersion – Range, Quartile Deviation, Mean Deviation and Standard Deviation. Lorenz Curve- Gini Coefficient - Skewness and Kurtosis.

#### **Module 5 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.

#### **References**

- 1) Dowling Edward.T, Mathematical Methods for Business and Economics, Schaums Outline Series, McGraw Hill, 1993.
- 2) Dowling Edward.T, Introduction to Mathematical Economics, 2<sup>nd</sup>/3<sup>rd</sup> Edition, Schaum's Outline Series, McGraw-Hill, New York, 2003
- 3) Taro Yamane, Mathematics for Economists: An Elementary Survey, Prentice Hall of India
- 4) Geoff Renshaw, Maths for Economics, 2/e, Oxford University Press, India
- 5) Teresa Bradley, Paul Patton, Essential mathematics for economics and business, 2nd ed, Wiley India
- 6) Baruah.S, Basic Mathematics and Its Application in Economics, Macmillan, 2002.
- 7) David M. Levine et.al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485
- 8) Anderson, Sweeney and Williams, Statistics for Business and Economics, Thomson Education
- 9) Lind D.A., W.G. Marchal and S.A Wathen., Statistical Techniques in Business and Economics, Tata McGraw Hill, New Delhi
- 10) Gupta S. P, Statistical Methods, Sultan Chand and Sons, New Delhi.

#### **Assignment / seminar Topics Suggestions**

Some assignment / seminar topics are suggested. The purpose of the assignments / seminar topics is desired to be of providing practical exposure to the students.

#### **Functions and Graphs**

Let students collect data from a shop and construct a demand function.

Give problems to make students understand how a function is formed from data and how a graph is plotted based on a function.

### **Meaning of Statistics and Description of Data**

Ask students / familiarise students of data sources on Indian Economy. Ask them to do analysis using a calculator or a spread sheet – calculation of percentages, averages, median etc.

### **Correlation and Regression Analysis**

Ask students / familiarise students of data sources on Indian Economy. Ask them to analyse data to workout possible correlation / regression.

### **Semester III**

**Course Category: Core Course 4**

**Course Title and Code: Modern Banking and Insurance, ECO3 B04**

**No. of Credits: 4**

**No. of Contact Hours: 72**

### **Modern Banking and Insurance**

#### **Objectives**

This course provides students the latest development in the field of banking and financial system. It also helps to familiarise the students with the changing scenario of Indian banking. The insurance part of the course aims at providing a basic understanding of the mechanics of insurance. It explains the concept of insurance and how it is used to cover risk. Some commonly used insurance terms are included. An overview of major life insurances and general insurance products are added as well.

#### **Module -1**

Brief history of banking - Unit banking - Branch banking - Mixed banking - Commercial banks – Credit Creation- Central bank - Development banks, IFCI, IDBI, SFC - Money market, components and instruments.

#### **Module - 2**

Recent trends in banking - e-banking - Internet banking - Debit card - Credit card, ATM, EFTS - RTGS - Tele banking - Social banking - Banking ombudsman – Role of CIBIL in credit rating- Banking sector reforms-capital adequacy norms - NPA - Consortium banking - cheque truncation system - E - Purse.

#### **Module - 3**

Insurance - Definition, Nature, Evolution, Principle, kinds - Types of insurance organisations - Reinsurance

#### **Module – 4 - Risk management**

Risk and uncertainty – need for security against economic difficulties - Risk management process – risk management and insurance (loss, permit, risk, hazard / types etc.) – risk management of life insurance companies – insurance company operations.

#### **Module - 4**

Life insurance - Kinds of Policies - Term insurance - Whole life - Endowment - Annuities - Surrender - Revival - Loans and claims - Motor insurance - Kinds of policies - Conditions -

Settlement of claims - Personal accident insurance - Mediclaim - insurance - Burglary insurance - Fidelity guarantee insurance.

**Reference:**

1. K.P.M. Sundaram and E.N.Sundaram - Modern Banking - Sulthan Chand and sons - New Delhi.
2. Sekhar and Sekhar - Banking and financial system - Margham publication - Chennai.
3. K.C. Mishra and Mangala Bakshi (2009), Insurance Business Environment and Insurance Company Operations, National Insurance Academy | Cengage Learning, New Delhi.
4. Dr. V.Balu - Banking and financial system Sri. Venkiteswara publications - Chennai.
5. Rejda, Principles of Risk Management and Insurance, 9<sup>th</sup> Edition, Pearson Education.
6. Mishra.M.N - Insurance, Principles and practices - Sulthanchand and company New Delhi.
7. Gupta.O.S - Life Insurance - Frank Brothers - New Delhi.
8. Pamda.G.S. - Principles and practise of insurance - Kalyani publishers - New Delhi.

### **Semester IV**

**Course Category: Core Course 5**

**Course Title and Code: Quantitative Methods for Economic analysis – II,  
ECO4 B05**

**No. of Credits: 4**

**No. of Contact Hours: 90**

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

#### **Introduction:**

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

#### **Objectives**

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

#### **Learning Outcome**

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

#### **Syllabus**

##### **Module 1 – Differential Calculus**

Limits and Continuity – Differentiation- Rules, Derivative of single variable and multi variable Functions (except Trigonometric and logarithmic Function), Higher Order Derivatives. Maxima and Minima of Functions. Curvature Properties-Convexity and Concavity. Application of derivatives in economics – Marginal Concepts, Elasticity, Optimisation.

##### **Module 2 - 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 3 - 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.

### **Module 4 - Fundamentals of probability\***

Basic probability concepts – mutually exclusive and collectively exhaustive events – statistically independent events – statistically independent events.

Types of probability – *A Priori* Classical probability – Empirical Classical Probability – Subjective Probability.

Rules of probability – the general addition rule – the general multiplication rule.

Marginal, joint and conditional probabilities – simple (marginal) probability – joint probability – conditional probability.

Bayes' Theorem – general form of Bayes' theorem.

*\* Teaching of this module should be focused on theory, only basic type problems are to be included.*

### **References**

- 1) Dowling Edward.T, Mathematical Methods for Business and Economics, Schaums Outline Series, McGraw Hill, 1993.
- 2) Dowling Edward.T, Introduction to Mathematical Economics, 2<sup>nd</sup>/3rd Edition, Schaum's Outline Series, McGraw-Hill, New York, 2003
- 3) Taro Yamane, Mathematics for Economists: An Elementary Survey, Prentice Hall of India
- 4) Geoff Renshaw, Maths for Economics, 2/e, Oxford University Press, India
- 5) Teresa Bradley, Paul Patton, Essential mathematics for economics and business, 2nd ed, Wiley India
- 6) Baruah.S, Basic Mathematics and Its Application in Economics, Macmillan, 2002.
- 7) David M. Levine et al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485 (Basic reference for module 4)
- 8) Anderson, Sweeney and Williams, Statistics for Business and Economics, Thomson Education
- 9) Lind D.A., W.G. Marchal and S.A Wathen., Statistical Techniques in Business and Economics, Tata McGraw Hill, New Delhi.
- 10) Gupta S. P, Statistical Methods, Sultan Chand and Sons, New Delhi.

### **Assignment / seminar Topics Suggestions**

Some assignment / seminar topics are suggested. The purpose of the assignments / seminar topics is desired to be of providing practical exposure to the students.

### **Probability**

1. Note down the sex of the first child in 30 households known to you as B or G. For families with a second child. Note down the sex of the second child among those a) with B and b) with G. Can you assert that the sexes of the first and second children are independent?
2. Note down the arrival time of your classmates nearest to a minute for the first lecture class for 5 days. Prepare a frequency table with a class interval 2 minutes by the time left to the

commencement of the lecture for each day. Compute the probabilities of each class interval on the five days and check whether there is any pattern.

### **Vital statistics**

Visit a large hospital. Talk to the authorities and gather information for the last two years on the details of hospital admissions and deaths by sex, age and cause. Compute and cause specific death rates for this group.

### **Index Numbers**

Consider the list of the following items: rice, wheat, dhal, black gram, ghee, coconut oil, washing soap, bathing soap, milk, coffee, tea, electricity, cloth.

- a) List the current retail prices of the items and their monthly consumption in your household. If the item is not used, delete from the list.
- b) Have a chat with a grand mother having a sharp memory. Ascertain the prices of the items in the year 1970.
- c) Compute the price index number of the current year with 1970 as base by Paasche's method.
- d) Interpret the result to the grandmother, of course in a manner she understands.

### **Time Series**

From newspapers note down the minimum and maximum temperature of any particular place for 6 weeks. Represent these data graphically. Estimate the trend by using a suitable model.

Refer periodicals concerned with business and finance and obtain time series data for any two variables of your choice. Analyse them.

**Semester IV**

<p><b>Course Category: Core Course 6</b> <b>Course Title and Code: Computer Application for Economic Analysis, ECO4 B06</b> <b>No. of Credits: 4</b> <b>No. of Contact Hours: 72</b></p>
--

**Computer Application for Economic Analysis**

**Objectives:**

Information technology has revolutionised the way we live and work. This course will provide the students with skills that are useful for using computer related technologies in academics and career.

**Learning Outcome:**

It is expected to provide the students with computing skills that are, necessary for easy use of IT. This course will arm the students with the knowledge of fundamentals of computers, word processors, spread sheet, data analysis and the digital economy. .

**Syllabus**

**Module 1. Introduction to Computers and Peripherals. (20 % weightage)**

Computer – meaning, types, features and limitations – Basic components of computer – Input and output devices – Primary memory and secondary storage – Computer software – types – malicious softwares – protecting computer – Operating systems – functions and types.

**Module 2. Word Processing (20 % weightage)**

MS Word 2007– word basic tool bars - Overview of word menu options — Working with Ribbon, Tabs, Groups and Buttons - Creating a new document – Manipulation of the first document – Editing the document

Inserting a table, graph, image and video – inserting header, footer and page number – inserting equations (equation editor) – inserting, activating and deactivating a hyperlink - Records and mail merge.

**Module 3: Data Analysis (20 % weightage)**

MS Excel 2007 – Excel environment – Excel toolbars – insertion of rows and columns – entering data/text – editing data/text.

Data – Autofill–Sort – Filter - Creation of charts and graphs – Manipulation of Data – Formula Syntax - entering and editing Formula – AutoSum-

Insert Functions - Function Library - Mathematical, Statistical and financial – Descriptive statistics - Correlation and Regression using data analysis ToolPak – Trend lines: Linear and non-linear -Use of Excel in economics and business analysis. (overview only)

**Module 4: Preparation of Presentations** (10 % weightage)

PowerPoint 2007 –Introduction to PowerPoint–creating a new presentations –using autocontent wizard –using blank presentation option –using design template option –adding slides –deleting / duplicating a slide –inserting /importing images, videos, graphs –transition / animation effects - starting a slide show.

**Module 5: The Digital Economy** (30 % weightage)

The World Wide Web – Evolution of Internet - Basic Internet Terminologies – Creating, sending and receiving email – social networks.

E-commerce – Meaning and concept– History of E-commerce – importance, features & benefits of E-commerce – impacts, challenges and limitations of E-commerce – Online shopping - Electronic Payment system

*Note I :Note to faculty / question paper setter: 1. This course is for B.A. Economics course. The students of this course may not have studied computer applications at higher secondary level. Hence questions may be confined to intermediary level and should be of non-technical nature. 2. Kindly give due consideration and adhere to the weightages indicated in the syllabus while setting question paper also.*

*Note II: Internal marks may be awarded based on practical examinations depending on the facilities available in each college. Expected practical sessions for teaching: 20 hours.*

**Reference**

1. Introduction to computer science, ITL Educational Solutions Limited. Pearson, Education – India, Second Edition. (ISBN:9788131760307)
2. Fundamentals of Computer: For undergraduate courses in commerce and management, ITL Educational Solutions Limited. Pearson, Education – India, Second Edition. (ISBN:9788131733349)
3. Microsoft Office Excel 2007 For Dummies, Greg Harvey,PhD, Wiley Publishing, Inc., (ISBN–13: 978–0–470–03737–9)
4. Statistics made simple – do it yourself on PC, K.V.S. Sharma, PHI, 4<sup>th</sup> Edition
5. Electronic Commerce: A Managerial Perspective, Turban, Efraim, David King et. el.: Pearson Education Asia, Delhi.
6. Modern Database Management; Hoffer, Jeffrey A, Marry B.Prescott, and Fred R.McFadden: Pearson Education, New Delhi 2004
7. Microsoft Office Word 2007 Plain & Simple, Joyce Moon, PHI(2007), ISBN–13–9788120331631, 1st Edition
8. Microsoft Office Word 2007 for Dummies, Dan Gookin, ISBN–13–9780470036587

9. Microsoft Office Powerpoint 2007: Visual Quick Tips, Paul Mcfedries, Wiley India Pvt Ltd (2007), ISBN-13-9788126512713
10. VikasGuptha – Comdex Computer Course Kit – Dream Teck Press

**Online resources**

1. <http://www.gcflearnfree.org/excel2007>
2. <http://office.microsoft.com/en-us/powerpoint-help/powerpoint-2007-training-courses-HA010218498.aspx?CTT=1>
3. [http://www.housing.wisc.edu/docs/tlc\\_quicktip\\_excel.pdf](http://www.housing.wisc.edu/docs/tlc_quicktip_excel.pdf)
4. <http://economictimes.indiatimes.com/tech/software/indian-software-product-sales-double-to-2-2-bn-in-2013nasscom/articleshow/24827813.cms>
5. <http://economictimes.indiatimes.com/tech/ites/indian-it-industry-seeing-a-turnaround-will-witness-good-growth-r-chandrasekaran-cognizant/articleshow/24988713.cms>
6. <http://www.livemint.com/Industry/9NgcztgP98azLAAwqfQNeI/Indian-domestic-IT-market-to-grow-at-1518-in-2013-report.html>
7. <http://www.nasscom.in/indian-itbpo-industry>
8. <http://www.nasscom.in/knowledge-professionals>

Besides the above references a number of resources are available online in the form of companion websites, websites to help users by software companies, lecture notes by faculty members etc. For some topics text book references are not available. For topics such as ‘the impact of outsourcing on the Indian economy’, ‘the Indian IT industry’ etc refer the Internet.

**Suggestions for assignments / seminars / practical sessions**

Teaching of this paper may be made more useful by training the student to use word processor, spread sheet and presentation software. Assignments may be insisted to be typed by the student and sent to the faculty by email. Assignment topics may include issues related to the digital economy and available on the internet. Assignments could be given to identify data sources on the Indian economy. Students may be encouraged to do data analysis based on this data. Familiarization of other data analysis software like SPSS, gretl, EViews, Minitab, M-Stat, R, STATA, SAS may be done as part of assignment. Seminar presentations may be insisted using PowerPoint. This course may be used to equip the student to be self-sufficient to do the data analysis, word processing and presentation of the project report of the final semester.

**Semester V**

**Course Category: Core Course 7**  
**Course Title and Code: Macro Economics – I, ECO5 B07**  
**No. of Credits: 4**  
**No. of Contact Hours: 108**

**Macro Economics - I**

**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.

**Objectives :**

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

**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.

**Syllabus**

**Module I: Introduction to Macroeconomics**

Macroeconomics and its scope - Microeconomics and macroeconomics – Macroeconomic models – Types of variable: Stock and flow, endogenous and exogenous, ex ante and ex post – Static, comparative static and dynamic – Equilibrium and disequilibrium.

**Module II: National Income**

National income concepts and their interrelationships – GNP - Nominal versus real GNP - Potential versus Actual GNP – Green GNP - GNP deflator – NNP, GDP, NDP, NI, PI, and DPI – National income identity-two sector, three sector and four sector economy- Methods of estimating national income – Difficulties in the estimation of national income.

**Module III: Classical Macro Economic Model**

Classical macroeconomics – Say's Law of Markets – Wage-price flexibility – Classical model of output and employment – Classical theory of price level determination – 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 IV: Keynesian Theory and Income Determination**

The background of Keynesian revolution – Principle of effective demand – Aggregate demand and its components – The consumption function – Fundamental Psychological Law – APC and MPC – Saving function – APS and MPS – The Investment function – Determinants of investment – Saving and Investment equality – MEC – MEI and role of expectations – The multiplier – Income determination in two and three sectors (Keynesian cross diagram and algebra) – Role of government – fiscal policy – Objectives of fiscal policy - Instruments of fiscal policy – Fiscal multipliers – tax multiplier, government expenditure multiplier, and balanced budget multiplier – Inflationary and deflationary gaps – The concept of underemployment equilibrium – wage-price rigidity – Keynes's theory of employment.

#### **Module V: Theories of consumption function**

The absolute income hypothesis - the Relative income hypotheses - The permanent income and life cycle hypothesis – random walk hypotheses - The Ratchet effect

#### **References:**

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

#### **Additional Readings**

1. Dominick Salvatore : *Microeconomic Theory* Schaum's Outline series : Tata Magrahill.
2. Lipsey R. and A Chrytal – *Economics* (11th Edition) Oxford University Press Newdelhi.
3. Nicoli Natrass and G.Visakh Varma, *Macroeconomics simplified: understanding keynesian and Classical Macroeconomic Systems*, Sage India Publications, 2014

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

**Semester V**

**Course Category: Core Course 8**  
**Course Title and Code: India's Economic Development: National and Regional, ECO5 B08**  
**No. of Credits: 4**  
**No. of Contact Hours: 108**

**India's Economic Development: National and Regional**

**Objectives**

To expose the learners to some of the key issues facing the Indian economy both at national and regional levels. In this process, as young adults, students are expected to be sensitised about these issues, appreciate and learn to critically assess the role of the government in various economic spheres. The learners are also exposed to numerical information relating to various aspects of Indian economy and India's economic policies. They are expected to develop analytical skills, interpret the economic events and visualise the economic future of India. For all these to happen, teachers are requested to take special care to instruct the students to read the

suggested reference books, collect clippings and articles from news papers and magazines and also develop the habit of following economic survey, economic review and RBI Bulletin. Besides, as against the conventional assignments, each module has '**Suggested Additional Activities**' at the end. Teachers need to encourage the learners to explore beyond the texts while attempting these activities.

**Report Based on Study Tour:** *A study tour is recommended because it may add direct experience to learners about different economic culture of the country. All the final year students need to prepare a report of the tour that includes the places they visited, its importance etc and submit it to the Head of the Department soon after the completion of the tour.*

**Module I - DEVELOPMENT POLICIES AND EXPERIENCE (1947-1990).**

Low Level of Economic Development under the Colonial Rule- Development and Structural Change of Indian Economy Since Independence: Economic policies Perused between 1950's and 1980's: Mixed Economic framework; Market intervention policy and import substitution; Objectives and strategy of planning: Failures and achievements of plans – NITI AAYOG

**Suggested Additional Activities**

1. Find out and prepare a list of items that India used to import and export during 1950-51 and 1990-91
  - a. Observe the difference

- b. Do you see the impact of self reliance? Discuss. Details can be collected from latest Economic Survey.
2. Find out the Deputy Chairman and members of the first Planning Commission of India
3. Find out the commodities which India Government permitted to import till 1980.
4. Explain how import substitution can protect domestic industry?

### **Module II - Economic Reforms since 1991**

Background for the introduction of New Economic Reforms of 1991; Liberalisation, Privatisation and Globalisation: An Appraisal- Indian Economy during Reforms with Special focus on trends in FDI, FII and Disinvestment- Centre-State Financial Relations: Finance Commission, its structure and Functioning (with emphasis on Latest Finance Commission).

#### **Suggested Additional Activities**

1. Prepare arguments for and against subsidies. Explain your view.
2. Do you think only loss making companies should be privatised? Why?
3. Construct a pie chart for the sectoral contribution of GDP for the period 1950-51 and 2012- 13. What would you observe? Is there a structural change? Explain in your own words
4. Prepare a list showing the latest data on the number of banks- nationalised, private, private foreign and New Generation Banks.
5. Discuss the different formulae used for Finance Commission awards.
6. Find out who all are there in the First Finance Commission of India?

### **Module III - Gross Domestic Product and Sectors.**

**a. Indian Agriculture:** The place of Agriculture in the National Economy; Recent Trends in Investment, Credit and Agricultural Subsidy Policy, Agricultural Marketing and Price- New Agricultural Strategy of 1960s (Green Revolution)- Food Security, PDS and TPDS in India; The Need, Scope and Appraisal of Land Reforms in a Developing Country like India.

**b. Indian Industries:** Review of Industrial Growth under Planning- Industrial Structure: Traditional, SSI, Village, Cottage and Modern Industries- Industrial Sickness-Industrial Policy Resolutions: 1956, 1977, 1980, 1991; an Analysis of Current Industrial Policy- Infrastructure Development in India.

#### **Suggested Additional Activities.**

1. Why, despite the implementation of green revolution, 65% of our population continued to be engaged in the agricultural sector till 1990?
2. Why was public sector given a leading role in industrial development during the plan period?
3. „Losses incurred by public sector undertakings are to be met out of the public budget“- Do you agree with this statement? Discuss.
4. Find out the method of estimating inflation in India. Compare it with other countries.

### **Module IV Current Challenges Facing the Indian Economy.**

a. Poverty: Who are Poor?, Causes and Measurement of Poverty, Number of Poor in India; Policies and Programmes Towards Poverty Alleviation with Special Emphasis on Recent Policies like- Food as a Right: The Food Security Act of 2013 & MGNREGS.

b. Unemployment: Nature, Trends and Estimates of Unemployment in India, Informalisation of Indian Work Force; Employment Prospective of the latest Five Year Plan; Recent Schemes to Reduce Unemployment and Underemployment.

**Suggested Additional Activities.**

1. Find out from your parents and teachers types of tax payments they are making. Classify the taxes and observe the differences.
2. On the basis of the definition of poverty line, analyse whether categorisation of people into BPL/APL is done in the correct way. Explain in your own words.
3. Analyse whether the dream programme of MGNREGP is carrying out in the right way. If „No“, suggest ways to make the programme more effective.
4. In some communities, you might have noticed that even if the males do not earn high income, they do not send women to work. Why?
5. Prepare a list of recent schemes and objectives to strengthen the rural areas from the government website <http://www.rural.nic.in>

**Module V Kerala's Economic Development**

Growth and Structure- Primary, Secondary and Tertiary Sectors-Economic Development Vs Social Development-Poverty Profile of Kerala- Indicators of Human Development: PQLI and HDI- Demographic Transition of Kerala- Trends in Employment and Unemployment in Kerala- Sustainability of —Kerala Model of Development with a Special Mention on Recent Sen- Bhagawati Debate- Decentralised Planning and Development of Kerala- Land Reforms in Kerala- Migration: Concepts in Migration- Emigration to the Gulf- Remittance and its Impact on the Economy of Kerala- Return Migration: Causes, Problems and Policies.

**Suggested Additional Activities.**

1. Find out the history of emigration from Kerala.
2. „Foreign remittance is the backbone of Kerala's socio-economic development“. Discuss.
3. What is Nitaqat and Saudization? In what ways it is harmful to the economy of Kerala.
4. Find out the reasons for the existing controversy in poverty estimation.
5. Observe the functioning of „ayalkoottams“ (SHGs) in your locality and write how far it is successful in empowering women.

**Basic Readings**

1. ECONOMIC DEVELOPMENT IN INDIA-Problems and Prospects, N.P. Abdul Azeez (Ed), Regal Publications, New Delhi.
2. Indian Economy, Gopalji Gupta, PEARSON, New Delhi.
3. Ahulwalia, I.J. and I.M.D. Little (Eds) (1999), *India's Economic Reforms and Development*, (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
4. Bardhan, P.K. (1999), *The Political Economy of Development in India*, Oxford University Press, New Delhi
5. Chakravarty S, (1987), *Development Planning: The Indian Experience*, Oxford University Press, and New Delhi
6. Acharya Shanker, Mohan Rakesh (Eds) (2011), *India's Economy: Performance and Challenges*, Oxford University Press, New Delhi

7. Uma, Kapila (2013), *Indian Economy: Performance & Policies*, Academic Foundation, New Delhi.
8. Amit Badhuri, *Development with Dignity* (2005), NBT New Delhi.
9. Brahmananda, P.R. and V.R. Panchmukhi (Eds) (1987), *The Development Process of Indian Economy*, Himalaya Publishing House, Bombay.
10. M.P Todaro, *Economic Growth* (2<sup>nd</sup> Edition), PEARSON, New Delhi
11. Jalan, B. (1992), *The Indian Economy – Problems and Prospects*, Viking, New Delhi.
12. Joshi, V. and I.M.D. Little (1999), *India: Macro Economics and Political Economy, 1964-1991*, Oxford University Press, New Delhi.
13. Kaushik Basu (Ed) (2004), *India's Emerging Economy*, Oxford University Press, New Delhi.
14. Centre for Development Studies, 1977, *Poverty, Unemployment and Development Policy: A case study of selected issued with reference to Kerala*, Orient Longman, Bombay.
15. B.A. Pakash (Ed) 2004, *Kerala's Economic Development: Performance and Problems in the post liberalization period*, Sage Publications, New Delhi.
16. B.N Ghosh & Patmaja D. Namboodiri, 2009 (Eds), *The Economy of Kerala Yesterday, Today and Tomorrow*, Serial Publications, New Delhi.
17. K.C. Zachariah, K.P. Kannan, S. Irudaya Rajan, 2002 (Ed). *Kerala's Gulf Connections*, C.D.S, Trivandrum.
18. Rajasenana, D. and Gerard De Groot (Ed) 2005, *Kerala Economy: Trajectories, Challenges and Implications*, CUST, Kochi.

**Semester V**

**Course Category: Core Course 9**

**Course Title and Code: Economics of Capital Market, ECO5 B09**

**No. of Credits: 4**

**No. of Contact Hours: 90**

**Economics of Capital Market**

**Learning Objective:**

In the present Globalised world financial institutions and markets play a significant role. The financial sector liberalization across the world including India has led to unprecedented growth in the financial sector, especially capital market, leading to the introduction of new and diversified financial instruments and financial practices, providing ample career opportunities to the students of economics. This course is designed to give an exposure to the students of economics to the changing world of financial markets and to give them an opportunity to familiarize with the basic concepts related to capital market which they read in newspapers and hear and see through electronic media in their daily walks of life, and to understand the economics of capital market. The course also aim at providing a platform to students of economics in developing the skills required to take up a career in financial sector and to provide them an opportunity to think of higher studies in finance which may open them the vast career opportunities in the field of finance.

**Module I – Financial Assets**

Financial system- Financial markets – Classification of Financial Markets – Financial Assets – Tangible and Intangible Assets – Debt Vs Equity – Properties of Financial assets– Financial System and Economic Development – Weakness of Indian Financial System.

**References:**

1. Frank J. Fabozzi and Franco Midiglian, —Capital Markets – Institutions and Instruments, Pearson Prentice Hall, New Delhi (Latest Edition).
2. Gordan K. Natarajan , —Financial Markets and Services, Himalaya Publishing House, Mumbai (Latest Edition).

**Module II – Capital Market**

Capital market – Meaning, Characteristics and Functions – Importance of Capital Markets in an economy – The structure of Indian capital market – Capital market instruments – Equity shares (rights shares, bonus shares, bluechip shares), Debentures or Bonds (Convertible, non-convertible, partly convertible, fully convertible, redeemable and irredeemable), Government securities, Euro Issues – GDRs, ADRs, Foreign Currency Convertible Bonds (FCCB) – Capital Market Institutions

– DIIs, FIIIs, Mutual Funds – Securities and Exchange Board of India (SEBI) – Objectives, Functions and Powers.

**References:**

1. S. Gurusamy, ‘Capital Markets’, Vijay Nicole Imprints Private Limited, Chennai (Latest edition)
2. Shashi K Gupta, Nisha Aggarwal and Neeti Gupta, ‘Financial Markets and Institutions’, Kalyani publishers, New Delhi (Latest edition)
3. M.Y. Khan, ‘Indian Financial System’, Tata McGraw Hill Education Private Limited, New Delhi (Recent edition)
4. Online Resource: [www.sebi.gov.com](http://www.sebi.gov.com)

**Activities/Assignments:**

1. Students may be asked to note down the important mutual funds operating in India and different schemes offered by some of them and their descriptions. (eg: Growth Funds, Open end Funds etc.)

**Module III – The Primary Market (New Issues Market)**

Meaning and Functions of Primary Market – Methods of Floating New Issues – Pure Prospectus method, Private Placement Method, IPO Method, Rights Issue Method, Bonus Issue Method, Book Building Method, Employee Stock Option (ESOP) – Intermediaries in New Issues Market – Merchant Bankers/Lead Managers, Registrars to an Issue, Underwriters, Bankers to an Issue, Brokers to an Issue, Debenture Trustees – Causes for Poor performance of New Issues Market.

**References:**

1. S. Gurusamy, ‘Capital Markets’, Vijay Nicole Imprints Private Limited, Chennai (Latest edition)
2. Shashi K Gupta, Nisha Aggarwal and Neeti Gupta, ‘Financial Markets and Institutions’, Kalyani publishers, New Delhi (Latest edition)
3. S. Gurusamy, ‘Financial Markets and Institutions’, Vijay Nicole Imprints Private Limited, Chennai (Latest edition)
4. S.N. Sasidharan and S. Aiyappan Pillai, ‘An Introduction to Capital Market’, Right Publishers, Kudavechoor (Latest edition)
5. L.M. Bhole, ‘Financial Institutions and Markets-Structure, Growth and Innovations’, Tata McGraw Hill Publishing Company Limited, New Delhi (Latest edition)

**Activities/Assignments:**

1. Show specimen of share application form (IPO) and ask the students to note down the important terms mentioned in the form. Tell them to write down the meaning of all such terms (eg: QIB, Retail Investor, Cap Price etc) and institutions related to IPO.
2. Ask the students to fill up the share application form so as to acquire some practical skills in the subject.

3. Students may be introduced to a specimen of Demat Account opening Form. (Available with DPs like Geojith Securities, JRG Securities, Stock Holding Corporation of India or other Stock Broking firms)

#### **Module IV – The Secondary Market – Stock Exchanges**

The Secondary Market – Difference between Primary market and Secondary Market – Listing of Securities – Physical Shares and Demat Shares – Depository Participant (DP) – NSDL and CSDL – Meaning and Definition of Stock Exchanges – Functions of Stock Exchanges – Origin and Development of Stock Exchanges in India – Bombay Stock Exchange (BSE) - National Stock Exchange (NSE) – Over the Counter Exchange of India (OTCEI) – Stock Market Index in India and Abroad: SENSEX and Nifty – NASDAQ, DOWJONES, FTSE, Nikkei.

#### **References:**

1. S. Gurusamy, *‘Capital Markets’*, Vijay Nicole Imprints Private Limited, Chennai (Latest edition)
2. Shashi K Gupta, Nisha Aggarwal and Neeti Gupta, *‘Financial Markets and Institutions’*, Kalyani publishers, New Delhi (Latest edition)
3. S. Gurusamy, *‘Financial Markets and Institutions’*, Vijay Nicole Imprints Private Limited, Chennai (Latest edition)
4. S.N. Sasidharan and S. Aiyappan Pillai, *‘An Introduction to Capital Market’*, Right Publishers, Kudavechoor (Latest edition)
5. L.M. Bhole, *‘Financial Institutions and Markets-Structure, Growth and Innovations’*, Tata McGraw Hill Publishing Company Limited, New Delhi (Latest edition)
6. Online resources: i) [www.nseindia.com](http://www.nseindia.com) ii) [www.bseindia.com](http://www.bseindia.com)

#### **Activities/Assignments:**

1. Ask students to visit SEBI website and collect data on purchase, sale and net investment in equity and debt instruments by FIIs in Indian Stock Market (Also available in financial dailies like Economic Times, Businessline etc.)
2. Ask students to visit the BSE website and note down the shares of companies included in SENSEX and their relative weightage in the index.
3. Ask students to visit the NSE website and note down the shares of companies included in NSE Nifty and their relative weightage in the index.
4. Students may be asked to find out other different indices published by BSE and make a short note of these indices from BSE website (eg: BSE PSU Index, BSE TECH Index etc.
5. Students may be directed to study the share holding pattern of some of the shares of companies listed at BSE or NSE. (Available also at [www.moneycontrol.com](http://www.moneycontrol.com))

#### **Note:**

1. **Students may be motivated to read financial dailies like Economic Times, Business Line, Business Standard, Dhanam etc regularly in order to get a proper understanding of the terms and concepts and the working of capital markets.**

2. **Students may be encouraged to watch exclusive financial channels like CNBC TV 18, NDTV PROFIT etc, to get an idea of stock trading and capital market activities.**
3. **If possible students may be taken to a stock trading terminal so as to get an idea of the online buying and selling shares.**

**Additional Reading:**

1. M. Y. Khan, *'Indian Financial System'*, Tata McGraw Hill Education Private Limited, New Delhi (Latest Edition)
2. L.M. Bhole and Jitendra Mahakud, *'Financial Institutions and Markets – Structure, Growth and Innovations'*, Tata McGraw Hill Educaiton Private Limited, New Delhi (Latest Edition)
3. Bharathi V. Pathak, *'The Indian Financial System – Markets, Institutions and Services'*, Pearson, New Delhi (latest edition)
4. K.L. Garg, *'Stock Exchanges in India'*, Bookland Limited, Calcutta.
5. V.A. Avadhani, *'Investment and Securities Market in India'*, Himalaya Publishing House, Bombay (Latest edition)

**Semester V**

**Course Category: Core Course 10**  
**Course Title and Code: International Economics, ECO5 B10**  
**No. of Credits: 4**  
**No. of Contact Hours: 90**

**International Economics**

**Introduction:**

International economics deals with the economic relations among nations --- both trade and financial relations—A good understanding in international economics is necessary for a student of economics and those who wish to work in these areas or governmental organizations.

**Objectives:**

The basic aim of this introductory course on international economics is to present before the students the questions, and answers, related to international economic relations.

**Learning Outcome:**

The students are expected to acquire skill that will help them to take rational decisions in issues related to international economics.

**SYLLABUS**

**Module I – Introduction to International Economics:**

Subject matter and importance of International Economics - Internal trade and International trade - Importance of International trade – International trade and economic development – Basic concepts - Terms of trade.

**Module II --- Theories of International Trade:**

Mercantilist approach to trade - Classical Theory: Absolute and Comparative Cost Advantage theories - Heckscher – Ohlin Theory and Leontief Paradox.

**Module III: Theory of Commercial Policy:**

Free trade - Arguments for and against free trade – Protection - Arguments for and against protection - Methods of Trade Restriction : Tariff and non-tariff trade barriers - Types of tariffs – New protectionism - export subsidy and countervailing duties - Dumping and anti-dumping duties – Economic Integration – WTO, EU, NAFTA, ASEAN, SAARC.

**Module IV --- Foreign Exchange:**

Foreign exchange market – functions - Defining foreign exchange and exchange rate – Exchange rate concepts – exchange rate changes (devaluation, revaluation, depreciation, appreciation-overvaluation and undervaluation) – Different systems of exchange rate determination - fixed and flexible exchange rate – Hybrid exchange rate systems – Managed floating – Theories of exchange rate – Mint Parity theory – Purchasing Power Parity Theory – Balance of Payments Theory - Components of Foreign exchange .

**Module V --- Balance of Payments:**

Defining Balance of Trade and Balance of Payments - Structure of balance of payments – Equilibrium and disequilibrium in BOP – Measures to correct BOP disequilibrium – India's BOP since 1991 – International financial flows – Foreign Direct Investment and Portfolio Investment – Currency Convertibility – IMF-Role and Functions.

**Reference:**

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. Carbaugh, *International Economics*, Cengage Learning
4. Francis Cherumilam - *International Economics*
5. Mannur, H.G. *International Economics*
6. Errol D'Souza, *Macro Economics*, Pearson Education 2008 (For BOP in India)
7. RBI Bulletin, Various issues.

**Semester VI**

<p><b>Course Category: Core Course 11</b> <b>Course Title and Code: Macroeconomics – II, ECO6 B11</b> <b>No. of Credits: 4</b> <b>No. of Contact Hours: 90</b></p>
--

**Macroeconomics- II**

**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.

**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.

**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.

**Syllabus**

**Module I: 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 II: Theories of Inflation and Unemployment**

Inflation – Definition - Types of Inflation - Measurement of inflation in India - Effects of inflation- Sacrifice ratio-Inflationary gap-Theories of inflation- Demand pull versus cost push inflation-Mixed inflation-Structural inflation- Measures to control inflation-Meaning and types of unemployment - Cost of unemployment and Okun's law - Phillips curve - Modified Phillips curve - Long run Phillips curve - Stagflation - reasons.

**Module III: Macro economic Instability and Policy:**

Business Cycle- meaning- types and phases- Theories of trade cycles- Hawtrey's theory- Hayek's theory- Keynesian theory-Monetarist interpretation of trade cycles-Contracyclical policy measures- Monetary, fiscal, and income policy - Meaning and Instruments.

**Module IV: Open Economy Macro Economics:**

Definition and derivation of IS curve - Shift in the IS curve - Definition and derivation of LM curve - Shift in the LM curve - General equilibrium in the IS-LM model - Relative effectiveness of monetary and fiscal policy - Derivation of IS and LM curves for an open economy - Definition and derivation of the BP curve - Shift in the BP curve - General equilibrium of an open economy using IS-LM-BP curves.

**References:**

1. Edward Shapiro – ‘Macro economics’ Oxford University press.
2. Gregory Mankiw – ‘Macro economics’ – 6th Edn. Tata McGraw Hill.
3. Richard T. Froyen – ‘Macro economics’, Pearson education.
5. Eugene Duilio – 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
8. Dornbusch, Fischer and Startz-MacroEconomics-Tata McGraw –Hill

**Additional Readings**

9. Dominick Salvatore : ‘Macroeconomic Theory’ Schaum’s Outline series : Tata Magrahill.
10. Lipsey R. and A Chrytal – Economics (11th Edition) Oxford University Press Newdelhi.
11. Glenn Hubbard and Anthony Patrick O’Brien: **Macroeconomics**-Pearson Education

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

**Semester VI**

<p><b>Course Category: Core Course 12</b> <b>Course Title and Code: Mathematical Economics, ECO6 B12</b> <b>No. of Credits: 4</b> <b>No. of Contact Hours: 90</b></p>
---

**EC6 B12, Mathematical Economics**

**Introduction**

Mathematical economics is an approach to economic analysis where mathematical symbols and theorems are used. Modern economics is analytical and mathematical in structure. Thus the language of mathematics has deeply influenced the whole body of the science of economics. Every student of economics must possess a good proficiency in the fundamental methods of mathematical economics. One of the significant developments in Economics is the increased application of quantitative methods and econometrics. A reasonable understanding of econometric principles is indispensable for further studies in economics.

**Objectives**

This course is aimed at introducing students to the most fundamental aspects of mathematical economics and econometrics. The objective is to develop skills in these. It also aims at developing critical thinking, and problem-solving, empirical research and model building capabilities.

**Learning Outcome**

The students will acquire mathematical skills which will help them to build and test models in economics and related fields. The course will also assist them in higher studies in economics..

**Syllabus**

**Module I. Introduction to Mathematical Economics** (10 % weightage)

Mathematical Economics: Meaning and Importance- Mathematical Representation of Economic Models- Economic functions: Demand function, Supply function, Utility function, Consumption function, Production function, Cost function, Revenue function, Profit function, saving function, Investment function

**Module II. Marginal Concepts** (25 % weightage)

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: Price elasticity, Income elasticity, Cross elasticity.

**Module III. Optimisation (25 % weightage)**

Optimisation of single / multi variable functions - Constrained optimisation with Lagrange Multiplier – significance of Lagrange Multiplier.

Economic applications: Utility Maximisation, Cost Minimisation, Profit Maximisation.

**Module IV Production Function, Linear Programming and Input Output analysis (25 % weightage)**

Production function- homogeneous and non-homogeneous. Degree of homogeneity and returns to scale - Properties of Cobb-Douglas production function. Production possibility curve.

Linear programming: – Basic concept, Nature of feasible, basic and optimal solution; Graphic solution - The Dual - Applications of linear programming in economics.

Input-output analysis –Matrix of technical coefficients – the Leontief matrix – computation of total demand for a two/ three sector economy.

**Module V. Market Equilibrium (15 % weightage)**

Market Equilibrium: Perfect Competition- Monopoly- Discriminating Monopoly

Note to faculty / question paper setter: 1. This course is for B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Kindly give due consideration and adhere to the weightages indicated in the syllabus while setting question paper also.

**Reference:**

1. Dowling E.T, Introduction to Mathematical Economics, 2nd Edition, Schaum's Outline Series, McGraw-Hill, New York, 2003(ETD)
2. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, Tata McGraw-Hill Education; Fourth edition (2013)
3. Henderson, J. M. and R.E. Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
4. James Bradfield , Jeffrey Baldani, An Introduction to Mathematical Economics, Cengage Learning India Pvt Ltd (2008)
5. A. Koutsoyiannis, Modern Microeconomics, Palgrave Macmillan; 2nd Revised edition (2003)(– see mathematical appendices for each topic given at the bottom of the page)

## **Semester VI**

<p><b>Course Category: Core Course 13</b> <b>Course Title and Code: Public Finance, ECO6 B13</b> <b>No. of Credits: 4</b> <b>No. of Contact Hours: 90</b></p>
---

## **Public Finance**

### **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.

### **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.

### **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.

### **Syllabus**

**Module 1:** Origin, growth, meaning and scope of public finance- Public and private finance- Principle of MSA-Public goods and private goods-mixed goods and merit goods (concepts only with examples)

**Module 2:** Public expenditure and cost benefit analysis – meaning and importance of public expenditure with special reference to India-Wagner's, Peacock-Wiseman Hypothesis-Canons of Public expenditure-effects of public expenditure on the economy of India-investment evaluation, project evaluation and cost benefit analysis with suitable examples.

**Module 3:** Public revenue and Income tax calculation- Sources of Public revenue-tax and non tax-classification of taxes-canons and principles of taxation- Ability to pay- cost of service and Benefit-impact, incidence and shifting of tax burden- effects of taxation- major taxes in India like income tax, VAT , GST- calculation of personal and corporation of personal and corporation income tax( with suitable examples).

**Module 4:** Public Debt and Budget in India- Public Debt and Debt management in India- Debt redemption- Budgeting in India- importance-types- Principles- procedures of budgeting- Gender Budget- revenue and capital budgets- zero base budgeting- performance budgeting- primary deficit-revenue and

capital deficit- budget deficit- fiscal policy with reference to India- contra cyclical fiscal policy- deficit financing and black money in India.

**Module 5:** Federal and local finance in India- meaning and importance- function of finance commissions- jurisdictions of finance commission – centre, state financial relations- local finances- functions and revenues.

### **Assignments and Seminars**

1. Discuss recent central, state and local government's budget.
2. Calculate income tax of an employee.
3. Prepare and calculate corporation tax of a company.
4. Visit any project in the locality and calculate cost benefit analysis.
5. Discuss about local finance and project.
6. Study about war finance.
7. Consider parallel economy of India.
8. Impact of revenue and expenditure of immigrants and emigrants on the economy of Kerala.
9. Fiscal and monetary policy of India.
10. Discuss Railway Budget.
11. Changes in the financial system of post reform in India.
12. Social Audit system and Reforms of UPA Government.

### **References:**

1. Musgrave and Musgrave
2. Public Finance by Um Kapila
3. Public Finance by Dutt and Sundaram
4. Public Finance by K.K. Dewett.

## **Semester VI**

**Course Category: Core Course 14**  
**Course Title and Code: Development Economics, ECO6 B14**  
**No. of Credits: 4**  
**No. of Contact Hours: 90**

### **Development Economics**

#### **Introduction :**

This course on the political economy of development and planning attempts to answer questions related to economic development in a comprehensive manner. Students who wish to take up position in formulation and implementation of public policy must have a reasonably good understanding of its political economy aspects

#### **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.

#### **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.

#### **Syllabus**

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

Why study Development economics?- Meaning of Growth and Development-measurement of development – Alternative measures of development :GDP, PCI, PQLI, HDI, HPI, GDI, GEM, Multi Dimensional Poverty index etc - (15 hours)

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

Rostows (stage theory) - Balanced versus Unbalanced growth theory, Low-level equilibrium trap, vicious circle of poverty, critical minimum effort, Big Push theory. (25 hours)

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

Concept, meaning and types of planning, Relevance of planning in the context of globalization-  
**Economic Planning in India:** Indian planning in a historical perspective:- Bombay plan, Gandhian Plan, People's plan.  
(10 hours)

#### **Module IV: Issues in development**

Poverty – measurement and classification, Inequality and its measurement (Kuznet's Ratio, Lorenz curve and Gini coefficient), Gender issues – the concept of missing women. Environment versus development – the concept of sustainable development, limits to growth, global warming- International Environmental Agreement- Climate changes And Problems- Kyoto Protocol-Tradable Permits And Carbon Taxes- Environmental Policy Instruments. (35 hours)

#### **References Books**

1. Amartya kumar Sen, *Growth Economics*, Penguin Education, 1970
2. Daron Acemoglu, *Introduction to modern economic growth*, 2008, Princeton university press
3. A N Agarwala and S P Singh, *The economics of underdevelopment*, Oxford university press, 1958.
4. Neri salvadori, *Old and New growth theories An Assessment*, Edward Elgar Publishing limited, 2003
5. A P Thirlwall, *Growth and development, With special reference to developing countries*, (8 ed), Palgrave Macmillian, 2006
6. Debraj Ray, *Development Economics*, Oxford university press, 2009.
7. Partha Das Gupta, *Economics A very short introduction*, OUP, 2007.
8. Kaushik Basu, *The new oxford companion to Economics in India*, OUP, 2012.
9. M.A Oommen(ed), *Kerala's development experience Volume I&II*, Institute of social sciences.
10. B A Prakash(ed), *Kerala economy problems and prospects*, sage publications, New Delhi.
11. Utsa Patnaik, *Poverty Trends in India 2004-05 to 2009-10, Updating Poverty Estimates and Comparing Official Figures*, Economic and Political Weekly, vol-XLVIII No.40, October 05, 2013.
12. Utsa Patnaik, *Trends in urban poverty under economic reforms: 1993-94 to 2004-05*, Economic and Political Weekly, vol-XLV No.4, January 23, 2010.
13. Kaushik Gangopadhyay and Kamal singh, *Extent of poverty in India A different Dimension*, Economic and Political Weekly, vol-XLVIII No.06, February 09, 2013
14. Radhicka Kapoor, *Inequality matters*, Economic and Political Weekly, vol-XLVIII No.02, January 12, 2013
15. Himanshu, *Towards new poverty lines for India*, Economic and Political Weekly, vol-XLV, No.01, January 02, 2010
16. Partha Das Gupta, *Nature of economic development and economic development of nature*, Economic and Political Weekly, vol-XLVIII No.51, December 21, 2013
17. Prachi Mishra, *Has India's growth story withered?*, Economic and Political Weekly, vol-XLVIII No.15, April 13, 2013
18. Pulapre Balakrishnan, *Economic Growth in India: History and prospect*, Oxford University Press, 2010.
19. Prabahath Patnaik, *Economic growth and employment*, Economic and political weekly, Vol: XLV1, No: 26-27, June 25, 2011.
20. Amitava Bose, *The analytics of changing growth rates*, Economic and political weekly, Vol: XLV, No: 28, July 10, 2010.
21. Jean Dreze and Reetika Khera, *The BPL census and Possible alternative*, Vol: XLV, No: 9, February 27, 2010.
23. Michael P Todaro and Stephen C Smith, *Economic Development (8th ed)*, Pearson Education Ltd, 2009.

## **Semester VI**

### **Project Work ECO6 B15 (Pr)**

**Detailed guidelines for the conduct of the project work are presented in page No.14. The general guidelines of the project are also presented in the CUCBCSS UG, Revised Regulations - 2014.**

# **COMPLEMENTARY COURSES**

## ***I. Essentials of Economics***

**Semester I**

**Essentials of Economics - Micro**

**Course Category: Complementary Course**  
**Course Title and Code: Essentials of Economics-Micro, ECO1 C01**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

### **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:**

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

**Semester II**  
**Essentials of Economics-Macro**

**Course Category: Complementary Course**  
**Course Title and Code: Essentials of Economics-Micro, ECO2 C01**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**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

**Semester III**

**Essentials of Economics-Money, Banking, Finance and Trade**

**Course Category: Complementary Course**

**Course Title and Code: Essentials of Economics-Money, Banking, Finance and Trade, ECO3 C01**

**No. of Credits: 2**

**No. of Contact Hours: 54**

**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

**Semester IV**

**Essentials of Economics-Indian Economy**

**Course Category: Complementary Course**  
**Course Title and Code: Essentials of Economics-Indian Economy, ECO4 C01**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**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. Keralapadham - KSSP Kozhikode

## **II. Co-operation**

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

**Course Category: Complementary Course**  
**Course Title and Code: Co-operation I, ECO1 C02**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

#### **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.

#### **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.

**Semester II**  
**Co-operation - II**

<p><b>Course Category: Complementary Course</b> <b>Course Title and Code: Co-operation II, ECO2 C02</b> <b>No. of Credits: 2</b> <b>No. of Contact Hours: 54</b></p>
--

**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.

**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.

**Semester III**  
**Co-operation - III**

<p><b>Course Category: Complementary Course</b> <b>Course Title and Code: Co-operation III, ECO3 C02</b> <b>No. of Credits: 2</b> <b>No. of Contact Hours: 54</b></p>
---

**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.

**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.

**Semester IV**  
**Co-operation - IV**

<p><b>Course Category: Complementary Course</b> <b>Course Title and Code: Co-operation IV, ECO4 C02</b> <b>No. of Credits: 2</b> <b>No. of Contact Hours: 54</b></p>
--

**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 decentralisation

**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 - I**

**Course Category: Complementary Course**  
**Course Title and Code: Banking I, ECO1 C03**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

#### **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.

#### **Suggested Readings:**

1. R.S. Sayers, Modern Banking. – Mac millon
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.

## **Semester II**

### **Banking - II**

**Course Category: Complementary Course**  
**Course Title and Code: Banking II, ECO2 C03**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

#### **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.

#### **Suggested Readings:**

1. R.S. Sayers, Modern Banking. – Mac millon
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.

## **Semester III**

### **Banking - III**

**Course Category: Complementary Course**  
**Course Title and Code: Banking II, ECO3 C03**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

#### **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.

#### **Suggested Readings:**

1. R.S. Sayers, Modern Banking. – Mac millon
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.

**Semester IV**

**Banking - IV**

<p><b>Course Category: Complementary Course</b> <b>Course Title and Code: Banking IV, ECO4 C03</b> <b>No. of Credits: 2</b> <b>No. of Contact Hours: 54</b></p>
---

**Module 1:**

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

**Module 2:**

Financial Liberalisation and its impacts. Recommendations of Narasimhan Committee – Financial Crisis and the Role of Public Sector Banks.

**Suggested Readings:**

1. R.S. Sayers, Modern Banking. – Mac millon
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.

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

### **Semester I**

### **Mathematical Tools for Economics - I**

**Course Category: Complementary Course**

**Course Title and Code: Mathematical Tools for Economics - I, ECO1 C04**

**No. of Credits: 2**

**No. of Contact Hours: 54**

**Objective:** The objective of the complimentary papers ‘Mathematical Tools for Economics’ is to familiarise the students of the mathematical tools and techniques that are commonly used in economics. The purpose of the course, then, is to present mathematical skills and concepts, and to apply them to ideas that are important to the economics students.

**Outcome:** It is expected that this course will open up the much needed mathematical rigour in understanding economic theory and empirical analysis. It is also expected that this course will substantially contribute to improving the problem solving skills, numerical aptitude of students.

#### **Module 1: Basic Mathematical Concepts: – Arithmetic and Algebra**

Introduction - Rules of algebra - Addition and subtraction of algebraic Expressions - Multiplication and division of algebraic expressions - Exponents- Polynomials, - Factorization Fractions, proportions, and ratios- Addition and subtraction of fractions - Multiplication and division of fractions.

#### **Module 2: Basic Mathematical Concepts: – Linear equations**

Introduction - Variables and parameters - Linear and non-linear equations - solution to a pair of linear simultaneous equations - Three linear equations with three unknowns - Economic applications - Demand and supply for a good.

#### **Module 3: Basic Mathematical Concepts: – Quadratic Equations**

Quadratic expressions – Solution of Quadratic equations – Quadratic formula - The case of the perfect square - Quadratic functions - Simultaneous quadratic equations - Economic application  
(a) Supply and demand (b) costs and revenue

### **Module 4: Graphs and Economic Applications**

Graphs of linear functions - The slope and intercept of a linear function - Graphical solution of linear equations - Simultaneous linear equations - Graphical solution of simultaneous linear equations - Isocost Lines - Supply and Demand Analysis.

#### **Basic Reference:**

1. Geoff Renshaw, Maths for economics, 2<sup>nd</sup> edition, Oxford University Press.
2. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL.

*Note to faculty / examiner: 1. This course is complementary of B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.*

#### **Additional References**

1. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
2. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012) ISBN 9788120346482
3. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition, Wiley India Pvt. Ltd (2006) ISBN 9788126509188
4. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
5. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt Ltd
6. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books (2010)
7. David M. Levine et.al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485

**Semester II**  
**Mathematical Tools for Economics - II**

**Course Category: Complementary Course**  
**Course Title and Code: Mathematical Tools for Economics - II, ECO2 C04**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**Module 1: Theory of Sets:** (20 % weightage)

Kinds of sets - Operations of sets - Venn Diagrams - Cartesian Products - Relations – Types of Relations - Functions.

**Module 2: Fundamental of Linear Algebra – Matrices:** (40 % weightage)

The Role of Linear Algebra - Matrices - Definitions, terms and types - Addition and Subtraction of Matrices - Scalar Multiplication, Vector Multiplication - Multiplication of Matrices - Commutative, Associative and Distributive Laws in Algebra - Identity and Null Matrices - Matrix Expression of a Set of Linear Equations.

**Module 3: Matrix Inversion:** (40 % weightage)

Determinants - Properties of a Determinant - Rank of a matrix - Minors and Cofactors - Adjoint of a matrix - Inverse of a matrix - Solving Linear Equations with the Inverse - Cramer's Rule for Matrix Solutions.

**Basic Reference:**

1. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL
2. Geoff Renshaw, Maths for economics, 2<sup>nd</sup> edition, Oxford University Press.

*Note to faculty / examiner: 1. This course is complementary of B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.*

**Additional References**

1. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
2. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012) ISBN 9788120346482
3. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition, Wiley India Pvt. Ltd (2006) ISBN 9788126509188
4. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
5. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt Ltd
6. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books (2010)
7. David M. Levine et.al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485

**Semester III**  
**Mathematical Tools for Economics - III**

**Course Category: Complementary Course**  
**Course Title and Code: Mathematical Tools for Economics - III, ECO3 C04**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**Module 1: The Derivative – one independent variable**

Limits - Continuity - The Derivative - Rules of Differentiation - Higher-Order Derivatives - Implicit Differentiation.

**Module 2: Uses of derivatives in Mathematics**

Increasing and Decreasing Functions - Concavity and Convexity - Relative Extreme-maxima and minima - Inflection Points - Optimization of Functions - Curve sketching

**Module 3: Uses of derivatives in Economics**

Total cost – average cost – marginal cost – relationship between MC and AC. - total revenue and marginal revenue – the market demand function – demand, total and marginal revenue with perfect competition - Profit maximisation – cost minimisation. - Elasticity – price elasticity of demand.

**Basic Reference:**

1. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL
2. Geoff Renshaw, Maths for economics, 2<sup>nd</sup> edition, Oxford University Press.
3. QaziZameeruddin, Vijay K Khanna, S K Bhambri, Business Mathematics, Second Edition, Vikas Publishing House, New Delhi.

*Note to faculty / examiner: 1. This course is complementary of B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.*

**Additional References**

1. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
2. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012) ISBN 9788120346482
3. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition,

Wiley India Pvt. Ltd (2006) ISBN 9788126509188

4. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
5. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt Ltd
6. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books (2010)
7. David M. Levine et al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485

#### **Additional Reference for Module 4**

Edgar Thorpe, Reasoning, Tata McGrawHill, 4<sup>th</sup> Edition. ISBN-13:978-0-07-062031-5

Aggarwal R.S., A modern approach to verbal and non verbal reasoning, S Chand, New Delhi  
ISBN 81-219-0551-6

Irving M. Copiet al., Introduction to Logic, 14 Edition, 2012, Pearson, ISBN-13- 9788131788653

Monica Prabhakar, Logic, Pearson, 2012

Patrick J. Hurley, Introduction to Logic 1st Edition, Wadsworth (2008), ISBN-13- 9788131507650

**Semester IV**  
**Mathematical Tools for Economics - IV**

**Course Category: Complementary Course**  
**Course Title and Code: Mathematical Tools for Economics - IV,**  
**ECO4 C04**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**Module 1: Calculus and Multivariable Functions:**

Functions of Several Variables and Partial Derivatives - Rules of Partial Differentiation - Second-Order Partial Derivatives - Optimization of Multivariable Functions - Constrained Optimization with Lagrange Multipliers - Significance of the Lagrange Multiplier – Differentials - Concept of Total and Partial Differentials - Concept of Total Derivatives - Implicit and Inverse Function Rules.

**Module 2: Application of Calculus of Multivariable Functions in Economics.**

Marginal concepts – marginal productivity - Elasticity concepts – price/cross/income elasticity of demand - Optimisation of multivariable functions in economics – constrained optimisation (Hessian determinant not required) 4. Homogenous production function and returns to scale.

**Module 3: Integral Calculus : The Indefinite Integral:**

Integration - Rules of Integration - Initial Conditions and Boundary Conditions - Integration by Substitution- Integration by Parts - Economic Applications.

**Module 4: Integral Calculus : The Definite Integral:**

Area under a Curve - The Definite Integral - Area between curves

**Basic Reference:**

1. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL
2. Geoff Renshaw, Maths for economics, 2<sup>nd</sup> edition, Oxford University Press.

*Note to faculty / examiner: 1. This course is complementary of B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.*

**Additional References**

1. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
2. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012) ISBN 9788120346482
3. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition, Wiley India Pvt. Ltd (2006) ISBN 9788126509188
4. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
5. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt Ltd
6. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books (2010)
7. David M. Levine et.al., Quantitative Techniques for Management, 1/e, Pearson Education, ISBN :9788131772485

# **OPEN COURSES**

## **(for Non-economics Students)**

### **Semester V**

#### **I. Economics in Everyday Life**

**Course Category: Open Course**  
**Course Title and Code: Economics in Everyday Life, ECO5 D01**  
**No. of Credits: 2**  
**No. of Contact Hours: 36**

**Objective of the course:** This course is an open course which will be offered to only those students for whom Economics is not the core course. The purpose of this paper is to introduce a non-economics students to the subject matter of economics by familiarising with the most basic concepts of economics. Special attention is given to include concepts that are used in everyday life.

*Note to faculty / question paper setter: This paper is intended for those students for whom their core subject is not Economics. The purpose of this paper is to familiarise non-economics students with the concepts of economics used in daily life. In-depth study of each topic is not expected. Only definition of each term / understanding of the concept is expected. Detailed study of the theory or in-depth diagrammatic analysis of any topic is not to be undertaken.*

#### **Module 1: Basic Concepts and the Methods of Economics**

What is economics- Definitions of economics- Basic problems of an economy- how the basic problems are solved by different economic systems – Microeconomics and Macroeconomics

#### **Module 2: Microeconomic Concepts**

Demand –demand function, demand schedule, demand curve. Supply –supply function, supply curve- market equilibrium.

Elasticity: price, income, cross - Determinants of elasticity.

Competition Vs. Monopoly. Multinational Corporations. Cartels – Mergers – Acquisitions

#### **Module 3: Macro Economic Concepts**

National income - GNP, GDP, Per Capita income. Fiscal and monetary policies: meaning and instruments, bank rate, repo rates, reverse repo rate. (concepts only)

Inflation – meaning, types and effects.

Budget - Revenue Expenditure and capital expenditure – Deficit: Revenue Deficit, Fiscal Deficit. Balance of trade and balance of payments - Current account and capital account  
FDI and FPI

### **Reference**

- 1 .Dominick Salvatore : Microeconomics : Theory and Applications',:Oxford University press, Newdelhi
- 2.Gregory Mankiw, \_\_Macro economics' – 6th Edn. Tata McGraw Hill. 3. Errol D'Souza – \_\_Macro Economics' – Pearson Education 2008.
4. B. Alvin Prakash, \_\_The Indian Economy Since 1991: Economic Reforms and Performance', Pearson Education India
- 5 .Subrato Ghatak \_\_Introduction to Development Economics' - Routledge
6. Lekhy -Public Finance and Public Economics – Kalyani publications
7. Indian Economy Since Independence 24/ed , Kapila U, Academic Foundation, New Delhi
8. Oxford Dictionary of Economics
9. The Penguin Dictionary of Economics
10. The New Palgrave Dictionary of Economics  
(<http://www.dictionaryofeconomics.com/dictionary>)

## **II. EC5 D02, International Trade and Finance**

**Course Category: Open Course**  
**Course Title and Code: International Trade and Finance, ECO5 D02**  
**No. of Credits: 2**  
**No. of Contact Hours: 36**

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

Importance of International Trade - Inter-dependence among countries - The concept of 'Trade as an engine of Growth' - Arguments for and against free trade

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

Absolute advantage - Comparative advantage – Hecksher-Ohlin

### **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

### **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. EC5 D03, BANKING**

**Course Category: Open Course**  
**Course Title and Code: Banking, ECO5 D03**  
**No. of Credits: 2**  
**No. of Contact Hours: 36**

#### **Module 1:**

Banks - Economic Importance - Growth of Banking in India.

Commercial Banking - Branch Banking Vs Unit Banking, Group Banking, Chain Banking, Mixed Banking, Clearance Banks - Balance sheet - Rules of Management of funds – Assets and Liabilities, Financial Intermediaries - Deposit Insurances - Merchant Banking

#### **Module 2:**

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, CIBIL, Credit creation, Limitations.

#### **Module 3:**

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 4:**

Central Banking - Reserve Bank of India - Functions of RBI

#### **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

# ***ELECTIVE COURSES***

## ***(for economics Students)***

### **Semester VI**

#### **I. ECO6 E01, Environmental Economics**

**Course Category: Elective Course**  
**Course Title and Code: Environmental Economics, ECO6 E01**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

#### ***Learning Objectives and Outcomes***

The paper intends to develop a vision and achieve a mission of attaining a sustainable society by studying the subject of environmental economics. The study of Environmental Economics calls for a detailed understanding of various environmental factors, their influence in the economy and environment. The main objective of teaching this paper is to make the students realize the causes and consequences of environmental problems in the contemporary world. After the completion of the course, student will equip an in-depth understanding of the inter-relationship between the economy and environment.

#### **SYLLABUS**

##### **Module I Introduction and Theoretical Discourse of Environmental Economics**

Definition and Scope of Environmental Economics - Why study Environmental Economics? - Interlinkages between Economy and Environment – Environment versus Economic development. Basic theory of Environmental Economics: Market failures and Externalities - Meaning of Market failure - Meaning and conditions of Pareto optimality - Positive and negative externalities in consumption and production - Measurement of externalities - Concept of Social welfare economics.

##### **Module II Major Environmental Problems in India**

Environmental Pollution - water, air, noise, solid waste, plastic, nuclear waste, e-waste - sand mining- Impact of climate change on human development – Climate change and health consequences - Global warming, Green house effect, Ozone depletion - Urbanization and its impact on environment— Population and Urbanization: its impact on environment.

### **Module III Economics of Sustainable development and regulating mechanism**

Concept and Objectives of Sustainable development – Strategies and rules for Sustainable development - Basic approach to the problems of pollution control: Moral suasion, direct control, pricing techniques (taxes, subsidies) - Cost-benefit analysis – Costs and benefits in controlling pollution –Environmental cost of economic growth – Environmental Kuznets Curve - limits to growth model – Evaluation of environmental benefits: Direct methods (Contingent valuation method, Trade off game method, Costless choice method, Delphi method) and Indirect methods (Hedonic pricing approach, Conventional market based approach, Cost based approach)

International Conventions/Protocols - Montreal protocol (1989) - Brundtland report (1987) - Rio declaration (1992) - Kyoto protocol (1997) - UN Framework Convention on Climate change (1992) - Aarhus Convention (1998) - Stockholm Convention (2001) - Johannesburg Declaration on Sustainable Development (2003).

#### **Reference**

Ashwani Mahajan (2010), Environmental Economics, Centrem Press.

Charles D Kolstad (2012), Intermediate Environmental Economics, Oxford University Press.

Dhingra I. C (2012), Indian Economy: Environment and Policy, Sultan Chand & Sons, New Delhi. Eugene T, (2006), Environment Economics, Vrinda Publication New Delhi

Karpagam (2008), Environmental Economics, Sterling Publishers. New Delhi.

Katar Singh and Anil Shishodia (2007), Environmental Economics, Theory and Applications, Sage Publications, New Delhi

Nick Hanley et al (2007), Environmental Economics: Theory and Practice, Palgrave Macmillan.

Paul Aekins (2000), Economic Growth and Environmental Sustainability, Routledge, London.

Rabinranath Bhattacharya (2002), Environmental Economics, An Indian Perspective, Oxford University Press, New Delhi.

Rajalakshmi N and Dhukasi Brinda (1994), Economics of Environment, Allied Publication Ahmadabad.

Sankar U (2001), Environmental Economics, Oxford University Press, New Delhi.

Vipin Chandran K. P and Sandhya P (2012), Climate change and Human development: A Pragmatic Approach, Social Action Journal, Vol.62, No.4, October-December 2012, pp 367-380.

## **II. ECO6 E02, Applied Theory of Markets**

**Course Category: Elective Course**  
**Course Title and Code: Applied Theory of Markets, ECO6 E02**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

**Objectives:** In the traditional economics courses, the theory of markets is a theoretical discussion. Its applied side is marketing the products, for which the understanding of the behavior of the consumer is essential. This course is intended to introduce the students to the basics of marketing and consumer behavior.

### **Module 1: Markets and marketing** 20 Hours

Classification of Markets – criteria for classification - Markets with competition Vs markets without competition (general discussion only, no need to discuss market forms in detail) – Marketing – Definition, Concepts, Significance & functions of Marketing - Approaches to the study of Marketing - Marketing and E-Commerce

Market segmentation – definition - needs & benefits - bases for segmentation for consumer goods, industrial goods & services - effective segmentation criteria; definition of Target Marketing, evaluating market segments, target market strategies - undifferentiated, differentiated, and concentrated.

Marketing Environment:-Analyzing needs and trends - Macro Environment- political, economic, sociocultural and technical environment - PEST analysis, concept of market potential & market share - Marketing in Indian Context

### **Module II – Consumer Behaviour** 15 Hours

Consumer Behaviour-Assumptions: 1. Rational Consumer 2. Budget Constraints 3. Consumer Preferences

Consumer Behaviour:- concept, characteristics of consumer and organizational markets, Five step Buyers decision process.

Factors influencing buying decision—cultural, social, personal and psychological factors—buying process—consumeradaptation process—changing patter of consumer behaviour in global economy.

### **Module III - Product and pricing decisions** 15Hours

Product and pricing decisions- Concept of product; product line and product mix; newproduct development; packaging and branding; brand extensions; Pricing decisions factorsinfluencing price

decisions; pricing strategies; Product life cycle stages and strategic marketing decisions.  
Sales promotion - objectives, tools and techniques.

**Module IV: Distribution decisions** 10 hours Distribution decisions-marketing channels, structure, types and criteria of selecting a channel, wholesaling, retailing, and physical distribution. e – marketing distribution

**Module V : Promotion** 12 Hrs

Promotion- An overview. Advertising, sales promotion, personal selling and sales management. Public and customer relations, direct and online marketing, multilevel marketing-the new marketing model.

**REFERENCES:**

1. Philip Kotler, Marketing Management| Pearson Education 13 th Edition.
2. Joel R. Evans and Barry Berman —Marketing in 21st century|, Biztantra 2003.
3. William Pride and O.C. Ferrel —Marketing concepts and strategies, Boston, Houghton Mifflin 1993|.
4. David W. Cravens, Gerald Hills, and Robert B. Woodruff —Marketing management, AITBS publishers 1996.
5. Arun Kumar and N Meenakshi, —Marketing Management|, Vikas Publishers
6. Hawkins, Best and Coney: Consumer Behaviour, Tata McGraw Hill, New Delhi 2004.
7. Schiffman, L.G. and Kanuk, L.L.: Consumer Behaviour, Pearson, New Delhi, 2011.
8. Laudon, David L and Bitta Albert J Della: Consumer Behaviour, Tata McGraw Hill, New Delhi 2005.
9. Rajendra P. Maheswari, Marketing Management, International Book House, 2012
10. Neelamegham, S, Marketing in India; Cases and Readings, Vikas New Delhi, 1988.
11. William G. Zikmund & Michael D'Amico, —Marketing; Craeting and Keeping —Customers in an E- CommerceWorld|, Thomson Learning

### **III. ECO6 E03 Economics of Business and Finance**

**Course Category: Elective Course**  
**Course Title and Code: Economics of Business and Finance, ECO6 E03**  
**No. of Credits: 2**  
**No. of Contact Hours: 54**

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

Basic concepts of Business Economics, Financial Economics and Managerial Economics.

#### **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 nonlinear – time value of 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 - Cartel, 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 2nd 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.