



# **CMS COLLEGE KOTTAYAM**

**(AUTONOMOUS)**

**Affiliated to the Mahatma Gandhi University, Kottayam, Kerala**

## **CURRICULUM FOR UNDERGRADUATE PROGRAMME**

### **BACHELOR OF ARTS IN ECONOMICS**

**UNDER CHOICE BASED CREDIT SYSTEM 2018**

**(With effect from 2018)**

Approved by the Board of Studies on 27-03-2018

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## ACKNOWLEDGEMENT

At the outset let me express my deep gratitude to the Lord Almighty. It was really a challenge to revamp the syllabus of Mahatma Gandhi University. The university syllabus commanded great academic charm and hence utmost care has been made to update and modify it without losing its innate richness. I take this opportunity to express my sincere appreciation to all those who were part of this endeavour for restructuring the syllabus of U G course in Economics under Mahatma Gandhi University, Kottayam.

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I place on record my whole hearted gratitude to the members of faculty of Economics and board of studies for their untiring efforts. I also appreciate the efforts of members of College academic section and other staff.

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Chairman,  
Board of Studies

## **PREFACE**

Today, Economics has emerged as one of the most 'sought after' and dynamic subjects of study in Social Sciences as it immediately communicates with the changing societal and economic priorities and needs. Many insights have been taken which are highly expedient in studying Economics and the behaviour of economic agents and their adaptations to economic policy and analysis of such behaviour in the present context of highly volatile markets and asymmetric information. In this context, Economics has emerged as one of the most important fields of study among the group of social science counterparts. In the past 50 years or so, many new developments and insights have taken place and become important in economic theory and policy. In the light of the expanding horizons of knowledge, tenacious efforts have been made to review the curriculum in many of the universities all over the world to make Economics an efficacious and meaningful subject. The curriculum merits better pondering so as to make it practically more competitive and student centred in the multidimensional environment.

# CURRICULUM

## GRADUATE PROGRAMME OUTCOMES (GPO)

At the completion of the under graduate program, the student will be able to accomplish the following objectives

GPO	Graduate Programme Outcomes
GPO.1	<b>Critical Thinking:</b> Take an informed and analytical approach to learning and demonstrate in-depth knowledge of the subject and give opinion(s) supported by logical reasoning that one have judged to be appropriate and understanding different approaches and using them
GPO.2	<b>Effective Communication:</b> Demonstrate proficiency in communicating competently in groups and organizations, competence in interpersonal communication; possess skills to effectively deliver formal and informal presentations to a variety of audiences in multiple contexts
GPO.3	<b>Social Interaction:</b> Foster social skills and peer interaction enabling them to make all people feel valued and respect their differences by being responsible citizens for creating a socially inclusive society
GPO.4	<b>Ethical Standards:</b> Recognize values such as justice, trust, equity, fairness, kindness and develop a commitment to meeting and upholding standards of ethical behavior in all walks of life and comprehending the moral dimensions of decisions and actions
GPO.5	<b>Environmental Consciousness:</b> Discern the issues of environmental contexts and engages in promoting values and attitudes that claim coexistence and sustainable living with reduced, minimal, or no harm upon ecosystems
GPO.6	<b>Lifelong Learning:</b> Acquire the skill to be an independent lifelong learner embracing real-time changes in the socio-technological context, promoting continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment

## PROGRAM SPECIFIC OUTCOMES(PSO)

IO No.	<b>Intended Programme Specific Outcomes</b> <i>Upon completion of BA Economics Programme, the graduates will be able to:</i>	<b>GPO</b>
<b>PSO-1</b>	imbibe the bedrock and well-founded education in Economics and cultivate a sense of Economic temper	1,3,5,6
<b>PSO-2</b>	grasp a structured curricula which support the academic development in the realm of Economics	1
<b>PSO-3</b>	prepare for further studies in Economics at advanced centres of learning and for securing best employment opportunities	2,
<b>PSO-4</b>	grab the opportunity to explore and pursue courses and programs that emphasise both quantitative and theoretical realms of Economics	1
<b>PSO-5</b>	secure the opportunity to focus on applied, analytical and policy issues in Economics;	1,4,
<b>PSO-6</b>	choose from a wide range of economic specialisation and options;	4,
<b>PSO-7</b>	achieve a well-resourced learning environment for Economics and enable them to embark upon a continued trajectory of learning	5,6,
<b>PSO-8</b>	Explore the dynamics of Economics, particularly unleashing them to conquer depths in research and applied spheres of Economics and social science.	3,6,
<b>PSO-9</b>	Cherish the real essence and vigour of the discipline of Economics and to have a well framed understanding of multidisciplinary disciplines.	2,
<b>PSO-10</b>	Cultivate, nurture and cherish a strong sense of environmental concern, uphold the noble ideals of sustainable development and to uphold a sense of social coherence	2,3,4,5,6
<b>PSO-LG</b>	Organise and deliver relevant applications of knowledge through effective written, verbal, graphical/virtual communications and interact productively with people from diverse backgrounds	2,3,

## **PROGRAMME DESIGN**

### **BA ECONOMICS**

The restructured programme contains Sixteen Core Courses, including one Open course Elective (Semester V) and one Choice Based Elective (Semester VI) from the frontier area of the Programme and a Project Evaluation, four Complementary Courses from the relevant subjects for complementing the core of the study. There are ten Common Courses which include the First and Second Languages of study. For the successful completion of the UG Programme the student should acquire a minimum of 120 credits.

Teaching, setting question papers and valuing answer scripts in respect of the core and complementary courses (including Open course) and choice based courses inducted in this curriculum must be done by the faculty members from the Department of Economics.

#### **Distribution of Credits**

<b>Sl No</b>	<b>Broad Title of Courses</b>	<b>No. of Courses</b>	<b>Credit</b>
1	Common Courses	10	38
2	Core Courses	14	58
3	Choice Based Open	1	3
4	Course		
5	Complementary	4	16
6	Courses		
7	Choice Based Course	1	3
8	Project	1	2
	<b>Total</b>	31	120



## PROGRAMME STRUCTURE – BA ECONOMICS

### (SEMESTER WISE )

Course code	Title of the Course	Hours/ Week	Credit
<b>SEMESTER I</b>			
EN1811501	English 1- <b>Fine Tune Your English</b>	5	4
EN1811502	English Common 1- <b>Pearls from the Deep</b>	4	3
	Second Language 1-		
HN1811501	<b>Prose and One Act Plays</b>		
ML1811501	<b>Katha Sahithyam</b>		
SC1811501	<b>Poetry/Grammar and History of Syriac Language and Literature</b>	4	4
EC1811101	<b>Perspectives &amp; Methodology of Economics</b>	6	4
HY1811201	Complementary 1- Social Formations in Pre-Modern India	6	4
<b>SEMESTER II</b>			
EN1812503	English 2- <b>Issues that Matter</b>	5	4
EN1812504	English Common 2- <b>Savouring the Classics</b>	4	3
	Additional Language		
HN1812503	Short Stories and Novel		
ML1812504	Kavitha		
SC1812503	Poetry/Grammar and History of Syriac Literature	4	4
EC1812102	<b>Quantitative Techniques for Economic Analysis-I</b>	6	4
HY1812202	Complementary 2- History of Freedom Movement in India	6	4
<b>SEMESTER III</b>			
EN1813505	English 3- Literature as Identity	5	4
	<b>Additional Language</b>		
HN1813505	Poetry Grammar and Translation		
ML1813507	Drishya Kalasahithyam	5	4
SC 1813505	Prose Grammar and Literature		
EC1813103	<b>Quantitative Techniques for Economic Analysis-II</b>	4	4
EC1813104	<b>Microeconomic Analysis I</b>	6	5
PS1813201	Complementary 3- An Introduction to Political Science	6	4
<b>SEMESTER IV</b>			
EN1814507	English 4- Illuminations	5	4
	<b>Additional language</b>		
HN 1814506	Drama and Long Poem		
ML 1814508	Malayala Gadyarachanakal		
SC 1814506	Poetry, Grammar and Syriac Heritage in	5	4

	India		
EC1814105	<b>Micro Economic Analysis -II</b>	5	4
EC1814106	<b>Public Economics</b>	4	4
PS 1814202	Complementary 4- Indian Constitution and Social Issues in India	6	4
	<b>SEMESTER V</b>		
EC1815107	<b>Macroeconomic Analysis-I</b>	6	4
EC1815108	<b>Economics of Growth &amp; Development</b>	5	4
	Open course	4	3
EC1815109	<b>Environmental Economics</b>	5	4
EC1815110	<b>Introductory Econometrics</b>	5	4
	<b>SEMESTER VI</b>		
EC1816111	<b>Macroeconomic Analysis II</b>	6	5
EC1816301	<b>Choice based elective- Mathematical Economics</b>	5	3
EC1816112	<b>International Economics</b>	4	4
EC1816113	<b>Money &amp; financial Markets</b>	5	4
EC1816114	<b>Indian Economy</b>	5	4
EC1816801	<b>Project</b>	-	2
	Total	150	120

## CORE COURSES

Core No	Course Name	Credit	Hrs/W	Semester	PSO
I	Perspectives and Methodology of Economics	04	06	I	1,3,6,7
II	Quantitative Techniques for Economic Analysis-I	04	06	II	1,3,4,5
III	Quantitative Techniques for Economic Analysis-II	04	04	III	1,3,4,5,9
IV	Microeconomic Analysis-I	05	05	III	1,2,5,8
V	Micro Economic Analysis -II	04	05	IV	1,2,8
VI	Public Economics	04	04	IV	1,5,9
VII	Macro Economics-I	04	06	V	1,3,5,8
VIII	Economics of Growth & Development	04	05	V	6,8,10
IX	Environmental Economics & Human Rights	04	05	V	1,8,10
X	Introductory Econometrics	04	05	V	1,3,4,5,6
XI	Macro Economics II	05	06	VI	3,5
ELECTIVE	<b>Mathematical Economics</b>	03	05	VI	1,3,4,5
XII	International Economics	04	04	VI	1,5,6
XIII	Money & Financial markets	04	05	VI	5,6,8
XIV	Indian Economy	04	05	VI	3,4,8,9
<b>Total</b>		<b>61</b>			

**PROGRAMME STRUCTURE – BA ECONOMICS**  
**(Category wise)**  
**COMMON COURSES**

Sl.No	SEMESTER	COURSE NAME		Credit	Hours/W
1	I	Common I- English 1- Fine Tune Your English		4	5
2	I	Common I- English 2-Pearls from the Deep		3	4
3	II	Common I- English 3- Issues that Matter		4	5
4	II	Common I- English 4 - Savouring the Classics		3	4
5	III	Common I- English 5- Literature as Identity		4	5
6	IV	Common I- English 6- Illuminations		4	5
7		Additional Language-I			
8	I	Common –II Hindi-I	Prose and One Act Plays	4	4
9		Common –II Malayalam- 1	Katha Sahithyam		
10		Common –II Syriac- 1	Poetry/Grammar and History of Syriac Language and Literature		
		Additional Language-I			
11	II	Common –II Hindi-II	Short Stories and Novel	4	4
12		Common –II Malayalam-II	Kavitha		
13		Common –II Syriac- II	Poetry/Grammar and History of Syriac Literature		
		Additional Language- I			
14	III	Common –II Hindi-III	Poetry Grammar and Translation	4	4
15		Common –II Malayalam-III	Drishya Kalasahithyam		
16		Common –II	Prose Grammar		

17	IV	Common –II Hindi-IV	Drama and Long Poem	4	4
18		Common –II MalayalamIV	Malayala Gadyarachanakal		
19		Common –II Syriac- IV	Poetry, Grammar and Syriac Heritage in India		
		Total		38	

**COMPLEMENTARY COURSES FOR B A HISTORY IN  
SEMESTER I & II**

Sl.No	Course Code	Course Name	Credit	Hrs/W	Semester
1	EC1811201	Principles of Economics	04	06	I
2	EC1812202	Basic Economic Studies	04	06	II
<b>Total</b>			<b>08</b>		

**OPEN COURSE - CHOICE BASED IN SEMESTER V**

Sl.No	Course Code	Course Name	Credit	Hrs/Wk	Semester
1	EC1815401	Foundations of Economics	<b>03</b>	04	V
2	EC1815402	Economics of Population	03	04	V
3	EC1815403	Business Economics	03	04	V

**EXTRA CREDIT COURSES IN SEMESTER- II**

Sl.No	Course Code	Course Name	Credit
1	ECX181201	Economics of Infrastructure	02

**ADD ON COURSES IN SEMESTER- IV**

Sl.No	Course Code	Course Name	Credit
1	ECX181401	Mathematics for Economics	02

**DETAILED SYLLABUS OF THE  
COURSES**

Offered by the Department

## SEMESTER- I

<b>Course code</b>	<b>Title of the Course</b>	<b>Category</b>	<b>Hours/Week</b>	<b>Credit</b>
EN1811501	<b>Fine Tune Your English</b>	Common 1-English 1	5	4
EN1811502	<b>Pearls from the Deep</b>	Common 1-English 2	4	3
	Additional Language 1-			
HN1811501	<b>Prose and One Act Plays</b>	Hindi-1	4	4
ML1811501	<b>Katha Sahithyam</b>	Malayalam-1		
SC1811501	<b>Poetry/Grammar and History of Syriac Language and Literature</b>	Syriac 1		
EC1811101	<b>Perspectives &amp; Methodology of Economics</b>	Core-1	6	4
HY1811201	<b>Social Formations in Pre-Modern India</b>	Complementary-1	6	4

Course		Details	
Code	EC1811101		
Title	<b>Perspectives and Methodology of Economics</b>		
Degree	B A		
Branch(s)	Economics		
Semester	1		
Type	Core		
Credits	5		
Total Hours	108		
Hours per week	06		
CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the broad contours of Social Sciences	U	1,8
2	Understand and differentiate, Economics(its methodologies, tools and analysis procedures) from other social science and science disciplines	U	2, 8,9
3	Comprehend on the basic postulates of different schools of Economic thought	U	1,9
4	Understand the various aspects of social science research, methodology, concepts, tools (with reference to economics)	U	6,7,8
5	Have a bird's eye view of Economics	R	1
6	Familiarise with the recent developments in economics and its sub disciplines	U	2,3,8,9
*PSO-Program Specific outcome; CO-Course Outcome; Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Methodology of Social Science</b>	16	
1.1	Meaning of Science and scientific analysis	2	1
1.2	Evolution of a scientific approach	2	1
1.3	Different branches of science	3	1
1.4	Social science Disciplines	3	1
1.5	Need for interdisciplinary approach	3	1
1.6	Objectivity and subjectivity in social Science	3	1
1.7	Limits to objectivity in social science		1
<b>2.0</b>	<b>Methodology, Concepts and tools of Economics</b>	29	
2.1	Economics as a social science	1	1,2
2.2	Subject matter and scope of Economics	1	2
2.3	Importance of the study of economics with other social sciences like history, political science, psychology, law and Sociology	4	2
2.4	Positive and Normative Economics	1	2,5
2.5	Economic theory and Economic laws	2	2,5
2.6	Micro and Macro Economics	1	2,5
2.7	Role of assumptions in Economics	1	2
2.8	Method and Methodology	1	4
2.9	Deductive and inductive methodology	2	4
2.10	Economic Models	1	2,4
2.11	Functions	1	4
2.12	Variables and types	1	4
2.13	Equilibrium-Partial and General	2	4
2.14	Static, Comparative static and Dynamic equilibrium analysis	4	4
2.15	Marginal and Total concepts	2	4
2.16	Nominal and Real concepts	2	4
2.17	Concept of value	2	2,4
<b>3.0</b>	<b>Major Schools of Economic Thought</b>	22	
3.1	Mercantilism (Thomas Mun, William Petty)	2	3
3.2	Physiocracy (Francis Quesnay and Turgot)	2	3
3.3	Classical thought(Adam Smith, Ricardo, J.B.Say, Malthus, J.S.Mill, Jeremy Bentham	4	3
3.4	Neo-Classical thought(Alfred Marshall, A.C.Pigou and Walras)	3	3
3.5	Socialist and Marxist Economic Thought (Saint Simon, Sismondi and Karl Marx)	2	3
3.6	Keynesianism( J M Keynes)	3	3
3.7	Monetarism (Milton Friedman)	2	3
3.8	Contributions of Indian Economists-Kautilya,	4	3

	Dadabhai Naoroji, Amartya Sen and J.N. Bhagawathi)		
<b>4.0</b>	<b>Recent Developments in Economics</b>	41	
4.1	10 Principles of Economics	5	6
4.2	Branches of Economics	4	6
4.3	Recent Developments in Economics(overview)	3	6
4.4	Behavioural Economics	3	6
4.5	Actuarial Economics	2	6
4.6	Neuroeconomics	2	6
4.7	Econophysics	2	6
4.8	Cryptoeconomics	2	6
4.8	Econometrics	3	6
4.9	Experimental Economics	4	6
4.10	Applied Economics	3	6
4.11	Quantitative Economics and its impact on the development of Economic science	2	6
4.12	Criticisms against Economics as a science	2	1,2

#### **Text Books for Reference**

Baumol, William J and Alan Blinder (2010): Economics: principles and Policy, 13 th Ed, South Western Cengage Learning, New Delhi.

Blaug, M (1998): The Methodology of Economics, Cambridge Surveys of Economic Literature New York.

Blaugh, Mark (1990): Economic Theory in Retrospect,4thed,Cambridge University Press, New York.

Boland, Lawrence A. (2000): The Methodology of Economic Model Building Methodology after Samuelson, Routledge, London and New York.

Boland, Lawrence A. (2003):The Foundations of Economic Method: A Popperian Perspective Second Edition, Routledge, London and New York.

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Hausman, Daniel M. (1992): Essays on philosophy and Economic Methodology, Cambridge University Press.

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Hunt, Elgin F and David C. Colander (2010): Social science-An introduction to the study of Society, 13<sup>th</sup> ed, Pearson, New Delhi.

Kaufmann, Felix (1958): Methodology of the Social Sciences, The Humanities Press, New York.

Krishna swami, O P and M Ranganathan (1993): Methodology of Research in Social Sciences, Himalaya Publishing House, New Delhi.

Lipsey, Christopher, T S Ragan, Paul A Storer (2007) : Micro Economics, 13 th ed, Pearson.

Lipsey, Crystal (1999): Principles of Economic Analysis, 9th Edition, Oxford University Press.

Mankiw, Gregory (2013) : Principles of Micro Economics, 6th ed, Cengage Learning India Private limited, Delhi.

Perry, John A and Erna K Perry (2010): Contemporary Society – An introduction to Social Science, 12 th ed, Pearson, New Delhi.

Samuelson P and Nordhaus (2002): Economics 7th ed, Tata McGraw-Hill.

Samuelson, P (1948) : Foundations of Economic Analysis, Harvard University Press

## SEMESTER- II

Course code	Title of the Course	Category	Hours/Week	Credit
EN1812503	<b>Issues that Matter</b>	Common Course 1-English 3	5	4
EN1812504	English Common 2- <b>Savouring the Classics</b>	Common Course 1-English 4	4	3
	Additional Language			
HN1812503	Short Stories and Novel	Common Course II-Hindi-2		4
ML1812504	Kavitha	Common Course II-Malayalam-2		
SC1812503	Poetry/Grammar and History of Syriac Literature	Common Course II-Syriac 2	4	
EC1812102	<b>Quantitative Techniques for Economic Analysis-I</b>	Core-2	6	4
HY1812202	Complementary 2- History of Freedom Movement in India	Complementary-2	6	4

Course		Details	
Code	EC1812102		
Title	<b>Quantitative Techniques for Economic Analysis</b>		
Degree	B A		
Branch(s)	Economics		
Semester	II		
Type	Core		
Credits	4		
Total Hours	108		
Hours per week	06		
CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	familiarise the fundamentals of mathematics and quantitative aspects	U	2,5
2	study of economic theory including micro economic theory, macro economic theory, statistics and econometrics at the undergraduate level within the purview of statistics	An	4,5
3	Bring into use the dynamics of mathematics and quantitative techniques	C	5
4	Study the subject of Econometrics with ease and interest	Ap	4
*PSO-Program Specific outcome; CO-Course Outcome; Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Basic Mathematics for Economic Analysis</b>	<b>28</b>	
1.1	Basic concepts: variables, constants, parameters, equations, exponents and logarithms	5	2
1.2	Sequences and progressions - arithmetic and geometric.	6	3
1.3	Applications of progressions in economics: problems relating to simple interest, compound interest, depreciation of assets and Net Present value	12	3
1.4	The real number system: properties of real numbers	5	3

	and types of numbers –limitations.		
<b>2.0</b>	<b>Differential Calculus</b>	<b>20</b>	
2.1	Limits & Continuity	3	3
2.2	Derivatives: Meaning and significance	3	2
2.3	Rules of differentiation – First order and second order derivatives	5	3
2.4	Maxima and Minima of functions	5	3
2.5	Applications in economics	4	3
<b>3.0</b>	<b>Set theory and Matrices.</b>	<b>30</b>	
3.1	types of sets -set operations- Venn diagrams	2	2
3.2	Relations and functions: ordered pairs and Cartesian product	3	2
3.3	Functions: Types - Important economic functions.	3	2
3.4	Linear and Quadratic-Solution to system of equations up to three unknowns	3	3
3.5	Matrices-Types,	3	2
3.6	Matrix manipulations and their rules	3	3
3.7	Order of Matrix, Transpose of Matrix	3	3
3.8	Determinants up to order 3x3	3	3
3.9	Properties and Value of determinant	2	3
3.10	Minor and Cofactor	3	3
3.11	Inverse and Cramer's Rule	2	3
<b>4.0</b>	<b>Theory of Probability</b>	<b>30</b>	
4.1	Permutations and combinations	3	3
4.2	Scope of probability in Economics- the case of uncertainty	3	2
4.3	Rules of probability (addition and multiplication theorem – statement only)	4	2
4.4	Different approaches of Probability	3	2
4.5	Important terms related to probability (Random experiments, sample space, events)	3	2
4.6	Simple economic problems based on probability theorems	3	3
4.7	Probability distributions – binomial and normal	6	3
4.8	Estimation of probabilities using binomial theorem standard normal table - their properties and uses and applications in Economics.	5	3

#### **Text Books for Reference**

1. Gupta S.P. *Statistical methods*. New Delhi: Sultan Chand & Sons.
2. Sharma J.K. *Business statistics*. Noida, India: Pearson Education.
3. Richard I Levin et.al. *Statistics for management*. India: Pearson Education.
4. Srivastava U.K et.al. *Quantitative techniques for managerial decisions*. New Delhi: New Age International Publishers.
5. Chiang A.C. (2005). *Fundamental methods of mathematical Economics*. McGraw Hill.

#### **Text Books for Enrichment**

1. Allen R.G.D. *Mathematical analysis for economists*. Palgrave Mac Millan.
2. Monga G.S. *Mathematics and statistics for economists*. New Delhi: Vikas Publishing House.
3. Bradley Terasa. *Essential mathematics for economics and business*. New Delhi Wiley India Edn.

## SEMESTER-III

Course code	Title of the Course	Category	Hours/Week	Credit
EN1813505	English 3- Literature as Identity	Common-1 English-5	5	4
	<b>Additional Language</b>			
HN1813505	Poetry Grammar and Translation	Common-2 Hindi-3		
ML1813507	Drishya Kalasahithyam	Common-2 Malayalam-3		
SC 1813505	Prose Grammar and Literature	Common-2 Syriac-3	5	4
EC1813103	<b>Quantitative Techniques for Economic Analysis-II</b>	Core-3	4	4
EC1813104	<b>Microeconomic Analysis I</b>	Core-4	6	5
PS1813201	An Introduction to Political Science	Complementary 3	6	4

Course	Details
Code	EC1813103
Title	<b>QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS II</b>
Degree	B A
Branch(s)	Economics
Semester	III
Type	Core
Total Hours	72
Hours per week	04
Credit	04

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Collect, analyse and interpret empirical data.	Ap	2,4
2	Have an introductory idea about statistical methods and tools that are essential for the empirical and analytical study of economics at the undergraduate level.	U	4
3	It also lies as an aid for carrying out their project study.	Ap	4
4	Have a better understanding about the quantitative aspects regarding research and economic analysis	U	5,8

\*PSO-Program Specific outcome; CO-Course Outcome;  
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Role of Statistics in Economics</b>	<b>17</b>	
1.1	Role of statistics- its Functions & limitations	2	2
1.2	Methods of primary data collection-census and sampling methods	2	3
1.3	Preparation of schedules and questionnaires	2	3
1.4	Sample designs – random sampling and non-random sampling (SRS, systematic, stratified, cluster and multistage sampling).	3	2
1.5	Classification and Tabulation of Statistical data	1	2
1.6	Characteristics and types of classification-types of tables	2	2
1.7	difference between classification and tabulation	1	2
1.8	Presentation of data using charts and diagrams	2	3
1.9	Types of diagrams- (Histogram, Polygon, frequency curve, Bar chart, Pie diagram, Ogives)	2	2
<b>2.0</b>	<b>Central tendency &amp; Dispersion</b>	<b>21</b>	
2.1	Various Measures and Properties of Central Tendency	1	2
2.2	Arithmetic mean	1.5	3
2.3	Median	1.5	3
2.4	other positional values-quartiles, deciles and percentiles	1.5	3
2.5	Mode	2	3
2.6	geometric mean and harmonic mean	2	3
2.7	Applications of measures of central tendency in economics	1.5	3
2.8	Dispersion: Various Measures, absolute and relative measures	2	2
2.9	Range	1	3
2.10	quartile deviation	2	3
2.11	mean deviation	2	3
2.12	standard deviation	2	3
2.13	Lorenz curve and its economic applications	1	3
<b>3.0</b>	<b>Correlation and Regression Analysis</b>	<b>15</b>	
3.1	Correlation- significance and types– measurement: scatter diagram, Karl Pearson’s correlation coefficient, (for ungrouped data only) and Rank correlation	4	2
3.2	Cause and effect relationships in Economics	1	2
3.3	Regression- meaning and significance	2	2
3.4	Regression equations/regression lines-the line of best	4	3

	fit		
3.5	Prediction based on regression equations	2	3
3.6	Relation between correlation and regression.	2	2
<b>4.0</b>	<b>Index Numbers and Time Series</b>	<b>19</b>	
4.1	Different types of Index Numbers – its Importance and limitations	2	2
4.2	Problems in construction of Index numbers	2	2
4.3	Weighted and Unweighted price index numbers	2	3
4.4	Different methods of constructing price indices– Simple aggregative, simple average of price relatives, Weighted aggregative: Laspeyre’s, Paasche’s, Fisher’s and Marshall Edgeworth’s indices, weighted average of price relatives methods.	4	3
4.5	Cost of living index numbers: significance, uses and methods of construction – aggregate expenditure method and family budget methods-WPI	2	3
4.6	Tests of index numbers- Time and factor reversal	2	3
4.7	Time series: meaning, definition, uses, components – additive and multiplicative models	2	2
4.8	Measurement of trend- free hand method, semi average, moving average and least square methods.	3	3

\*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

#### **Text Books for Reference**

1. Gupta S.P. *Statistical methods*. New Delhi: Sultan Chand & Sons.
2. Sharma J.K. *Business statistics*. Noida, India: Pearson Education.
3. Richard I Levin et.al. *Statistics for management*. India: Pearson Education.
4. Srivastava U.K et.al. *Quantitative techniques for managerial decisions*. New Delhi: New Age International Publishers.
5. Chiang A.C. (2005). *Fundamental methods of mathematical Economics*. McGraw Hill.

#### **Text Books for Enrichment**

1. Allen R.G.D. *Mathematical analysis for economists*. Palgrave Mac Millan.
2. Monga G.S. *Mathematics and statistics for economists*. New Delhi: Vikas Publishing House.
3. Bradley Terasa. *Essential mathematics for economics and business*. New Delhi: Wiley India Edn.

Course	Details
Code	EC1813104
Title	<b>Micro Economic Analysis I</b>
Degree	B A
Branch(s)	Economics
Semester	3
Type	Core
Total Hours	90
Hours per week	06

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the fundamentals of microeconomics	U	1,7
2	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy	U	2
3	Get introduced to the framework for learning about consumer behaviour and analyzing consumer decisions	U	2
4	to study about firms and their decisions about optimal production	An	3
5	to solve basic microeconomic problems,	An	5
6	Use the fundamental techniques to think about a number of policy questions related to the operation of the real economy.	Ap	5
7	to understand introductory microeconomic theory in a local, regional, national and international scenario	U	1
8	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy	U	2
<p>*PSO-Program Specific outcome; CO-Course Outcome; Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.</p>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to Microeconomics</b>	<b>14</b>	
1.1	Definitions of Microeconomics	1	1
1.2	Problem of scarcity and choice	2	1
1.3	Central problems of Economy	2	1
1.4	Production possibility frontier	2	2
1.5	Microeconomic policy goals – efficiency and equity	1	2
1.6	Functions of an economic system	2	2
1.7	Short run and long run analysis	1	2
1.8	Partial and general equilibrium analysis	2	2
1.9	Marginal concept in micro Economics –	1	2
<b>2.0</b>	<b>Demand and Supply Analysis</b>	<b>21</b>	
2.1	Concepts of demand- Factors affecting demand	2	2
2.2	Law of demand- exceptions	1	2
2.3	demand for normal, inferior, substitute and complementary goods	2	2
2.4	Shifts of demand versus movements along a demand curve	2	3
2.5	elasticity of demand – Degrees- price elasticity of demand – determinants- methods of estimation – Total outlay, Point, and arc method	2	2
2.6	income elasticity of demand and cross elasticity of demand	2	2
2.7	Concepts of supply- Factors affecting supply	1	2
2.8	Law of supply- shifts of supply versus movements along a supply curve	1	2
2.9	elasticity of supply – uses of elasticity	1	3
2.10	market equilibrium and impact of changes in demand and supply	1.5	3
2.11	dynamic demand and supply model	2	2
2.12	cobweb model	1	2
2.13	demand forecasting – objectives and methods of demand forecasting	2	3
2.14	Seller's view.	0.5	2
<b>3.0</b>	<b>Theory of Consumer Behaviour</b>	<b>30</b>	
3.1	Concepts of Total and Marginal utility	2	2
3.2	Consumer preferences and choice-consumer's equilibrium	2	2
3.3	cardinal utility and ordinal utility	2	2
3.4	law of diminishing marginal utility –consumer equilibrium under cardinal utility	2	2
3.5	derivation of demand curve	1	3
3.6	law of equimarginal utility	1	2
3.7	water-diamond paradox	1	2
3.8	criticisms of cardinal utility approach	1	2

3.9	indifference curve analysis – characteristics	2	2
3.10	MRS - budget line – consumer’s equilibrium	1	2
3.11	income effect and Engel curve	1	2
3.12	price effect, income effect and substitution effect	2	2
3.13	derivation of demand curve – splitting price effect into income effect and substitution effect: Hicksian and Slutsky’s approaches	2	3
3.14	Criticisms of ordinal utility approach	1	2
3.15	Network Externalities in demand theory-Veblen-Snob & Bandwagon effects	2	2
3.16	revealed preference theorem – derivation of demand curve – distinction between weak and strong ordering	2	3
3.17	consumer’s surplus – Marshallian and Hicksian approaches	2	3
3.18	New approaches to consumer theory - Pragmatic approach & Linear Expenditure System (LES)	2	2
3.19	Linear programming	1	3
<b>4.0</b>	<b>Theories of Production and Cost</b>	<b>35</b>	
4.1	Production function	1	2
4.2	total, average & Marginal product	1	2
4.3	time element in production function	1	2
4.4	law of variable proportions (modern approach)	3	2
4.5	isoquants – properties	2	2
4.6	MRTS - ridgelines and economic regions of production	2	2
4.7	Isocost lines	2	2
4.8	optimal input combination – producer’s equilibrium	2	2
4.9	expansion path	1	2
4.10	elasticity of factor substitution	2	2
4.11	laws of returns to scale	2	2
4.12	economies and diseconomies of scale	2	2
4.13	empirical production function: Cobb-Douglas production function – properties	3	2
4.14	CES-VES	2	2
4.15	cost functions - cost concepts - explicit and implicit costs, economic and accounting costs, sunk cost, opportunity cost ,real cost, social cost	3	2
4.16	traditional theory of costs - short run and long run analysis of costs – envelope curve	3	2
4.17	modern theory of cost – short run and long run- L-shaped and saucer-shaped cost curves	3	2

**Text Books for Reference**

1. A. Koutsoyiannis. (1979). Modern Microeconomics. Palgrave McMillan.
2. Dominick Salvatore. Micro Economics Theory and Application. 4<sup>th</sup> Ed. New Delhi: Oxford University Press.
3. Robert S. Pindyck, et al. (recent edition). Micro Economics. Delhi: Pearson Education.
4. G.S. Maddala, Ellen Miller. (2004). Micro Economics - Theory and Applications. Delhi: Tata McGraw Hill.
5. Case, Karl E. & Ray C. Fair. (2007). Principles of Economics. (8<sup>th</sup> edition). Delhi: Pearson Education.
6. Varian. H.(2000). Intermediate microeconomics: A modern approach.

Affiliated east West Press Pvt. Ltd.

7. Watson and Getz. (1996). Price Theory and its uses. New Delhi: AITBS Publisher.
8. Robert Y. Awh. Microeconomics- Theory and Applications. John Wiley and Sons Inc. (RYA).

**Text Books for Enrichment**

1. Sen. A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
2. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
3. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
4. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
5. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGrawHill (India), 2009.
6. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
7. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

## SEMESTER-IV

Course code	Title of the Course	Category	Hours/Week	Credit
EN1814507	Illuminations	Common-I English 6	5	4
	<b>Additional language</b>			
HN 1814506	Drama and Long Poem	Common-II Hindi-4		
ML 1814508	Malayala Gadyarachanakal	Common-II Malayalam-4	5	4
SC 1814506	Poetry, Grammar and Syriac Heritage in India	Common-II Syriac- 4		
EC1814105	<b>Micro Economic Analysis -II</b>	Core-5	5	4
EC1814106	<b>Public Economics</b>	Core-6	4	4
PS1814202	<b>Indian Constitution and Social Issues in Inda</b>	Complementary-4	6	4

Course	Details
Code	EC1814105
Title	<b>Micro Economic Analysis II</b>
Degree	B A
Branch(s)	Economics
Semester	4
Type	Core
Total Hours	90
Hours per week	05
Credit	4

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Describe and analyze the microeconomic way of thinking	2	1
2	Describe the methodology used in microeconomics	2	3, 4
3	Describe the behaviour of buyers and sellers in a competitive marketplace	2	1,7
4	Describe the effects of different markets on the price of a product, the quantity of a product and the allocation of society's resources.	2	4
5	understand consumer and firms' behaviour and to analyze different types of market structures	2	3
6	analyzes the behaviour of firms in a monopoly or oligopoly, and calculates the resulting changes in producer or consumer surplus	3	4
7	use economic tools to analyze economic policies and welfare implications on the basis of economic theory	3	4
*PSO-Program Specific outcome; CO-Course Outcome; Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Market Structure</b>	<b>21</b>	
1.1	Meaning of market- Types and Market structures	2	2
1.2	Perfect Competition –characteristics - short run and long run equilibrium of a firm and industry – derivation of supply curve – shut down point – producer's surplus	3	3
1.3	imperfect markets	2	2
1.4	Monopoly – sources - features – short run and long run equilibrium	3	2
1.5	discriminating monopoly- price and output determination under discriminating monopoly	2	3
1.6	degrees and types of price discrimination – dumping	2	2
1.7	Monopsony	1	2
1.8	Bilateral monopoly	1	2
1.9	Deadweight loss and social costs of monopoly power	2	2
1.10	regulation of monopoly	1	2
1.11	degree of monopoly power	2	2
<b>2.0</b>	<b>Monopolistic Competition and Oligopoly</b>	<b>25</b>	
2.1	Monopolistic competition – characteristics	2	2
2.2	non-price competition and selling costs	2	2
2.3	short run and long run (group) equilibrium	2	3
2.4	ideal output and excess capacity	2	2
2.5	limitations of monopolistic competition	2	2
2.6	oligopoly – characteristics – Price stickiness	2	2
2.7	Kinked demand curve – Sweezy model	2	3
2.8	Non-Collusive oligopoly –Oligopsony, Duopoly and Duopsony (concept only)	2	2
2.9	competition Vs collusion	2	2
2.10	collusive oligopoly	1	2
2.11	cartels and price leadership – low-cost, dominant and barometric price leadership models	2	2
2.12	concept of limit pricing and cost plus pricing	2	2
2.13	Asymmetric Information	2	2
<b>3.0</b>	<b>Income Distribution and Factor Pricing</b>	<b>24</b>	
3.1	Functional versus personal distribution	1	2
3.2	concepts of total physical product (TPP), average physical product (APP) and marginal physical product (MPP)	3	2
3.3	Marginal productivity theory of distribution	3	2
3.4	factor price determination under perfect competition and imperfect competition	2	3
3.5	Ricardian and modern theories of rent	3	2
3.6	quasi-rent	2	2

3.7	money and real wages - wage differentials - effect of labour unions on wages	3	2
3.8	theories of interest – classical, Neo-classical and Keynesian theories of interest	4	2
3.9	theories of profit- dynamic theory, risk- bearing theory – innovation theory of profit	3	2
<b>4.0</b>	<b>Welfare Economics</b>	<b>20</b>	
4.1	Welfare economics – nature, concepts and scope	3	2
4.2	problems of measuring social welfare	2	3
4.3	Edgeworth box diagram	2	2
4.4	contract curve	3	2
4.5	criteria of social welfare	1	2
4.6	role of value judgement	1	2
4.7	growth of GNP criterion	1	2
4.8	Bentham’s criterion	1	2
4.9	Cardinalist criterion	1	2
4.10	Pareto Optimality criterion	2	3
4.11	Kaldor Hicks Compensation Criteria	1	2
4.12	Sen’s Capability Index	2	2

#### **Text Books for Reference**

- 1.A. Koutsoyiannis. (1979). Modern Microeconomics. Palgrave McMillan.
- 2.Dominick Salvatore. Micro Economics Theory and Application. 4<sup>th</sup> Ed. New Delhi: Oxford University Press.
- 3.Robert S. Pindyck, et al. (recent edition). Micro Economics. Delhi: Pearson Education.
- 4.G.S. Maddala, Ellen Miller. (2004). Micro Economics - Theory and Applications. Delhi: Tata McGraw Hill.
- 5.Case, Karl E. & Ray C. Fair. (2007). Principles of Economics. (8<sup>th</sup> edition). Delhi: Pearson
- 6.Education. 6. Varian. H.(2000). Intermediate microeconomics: A modern approach.
- 7.Affiliated east West Press Pvt. Ltd.
- 8.Watson and Getz. (1996). Price Theory and its uses. New Delhi: AITBS Publisher.
- 9.Robert Y. Awh. Microeconomics- Theory and Applications. John Wiley and Sons Inc. (RYA).

#### **Text Books for Enrichment**

- 1.Sen. A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
- 2.Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
- 3.Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
- 4.C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
5. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGrawHill (India), 2009.

Course	Details
Code	EC1814106
Title	<b>Public Economics</b>
Degree	B.A
Branch(s)	Economics
Semester	4
Type	Hard core
Total Hours	72
Hours per week	4
Credit	4

CO No.	Expected Course Outcomes <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Analyze the impact of public policy on the allocation of resources and the distribution of income in the economy.	An	2
2	Understand the various activities of the state in Economic affairs	U	1
3	Evaluate about the working of the public finance system.	E	5
4	Understand about the working of the Indian public finance.	U	1,3,5
5	Understanding of the working of local administration and have a knowledge of local budgeting norms.	U	1,3,5
6	Develop a critical ability to analyse the budget of central and state governments.	An	5
*PSO-Program Specific outcome; CO-Course Outcome; Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to Public Finance</b>	<b>14</b>	
1.1	Meaning and subject matter of Public Finance., -	1	2
1.2	Public and Private Finance	1	2
1.3	Fiscal Functions-Allocation, distribution and stabilization.	1	2
1.4	Principles of Maximum Social Advantage: Dalton, Musgrave.	3	2
1.5	Public Goods,	1	2
1.5.1	Pure Public Goods	1	2
1.5.2.	Impure Public Goods.	1	2

1.5.3.	Free rider problem	1	3
1.6	Private Goods, Mixed Goods and Merit Goods.	1	2
1.7	Market failure and role of government	3	4
<b>2.0</b>	<b>Public Revenue</b>	<b>22</b>	
2.1	Sources of public revenue	1	2
2.2	Classification of Taxes	1	2
2.3	Canons of Taxation	1	2
2.4	Principles of Taxation:	2	2
2.4.1	Ability To Pay Principle- Subjective & Objective Approach.		2
2.4.2	Benefit Principle of Taxation.		2
2.4.3	Cost of Service Principle of Taxation.		2
2.5	Impact, Incidence and shifting of Tax Burden.	1	2
2.6	Effects of Taxation	1	2
2.7	Measurement of Deadweight loss.	1	3
2.8	Taxable Capacity	1	2
2.8.1	Laffer curve	1	2
2.9	Major Taxes in India and its impact		4
2.9.1	Value Added Tax in India.	1	4
2.9.2	Goods and Service Tax (GST-brief history, legislation and impact).	2	3
2.10	Budget and its role.	1	4
2.10.1	Classification of budget Concepts:	1	4
2.10.1.1	Revenue Account.	1	4
2.10.1.2.	Capital Account	1	4
2.10.2	Fiscal Deficit, Revenue Deficit & Primary Deficit.	1	4
2.10.3.	Zero Base Budgeting.	1	3
2.10.4	Budgetary Procedure in India (introduce the recent Central Budget to the students).	2	3
2.10.5	Gender Budgeting.	1	3
2.11	Fiscal Policy	1	2
2.12	Deficit financing	1	2
<b>3.0</b>	<b>Public Expenditure</b>	<b>18</b>	
3.1	Meaning of Public Expenditure.	1	2
3.2	Canon's of Public Expenditure	2	2
3.3	Plan and Non-plan Expenditure	1	2
3.4	Developmental and Non-developmental expenditure	1	2
3.5	Theories of Public Expenditure:		2

3.5.1	Wagner's Hypothesis	1	2
3.5.2	Peacock - Wiseman Hypothesis	2	2
3.5.3	Critical Limit Hypothesis	2	2
3.6	Effects of Public Expenditure	2	2
3.7	Public expenditure in India		4
3.7.2	Public expenditure: Its pattern & growth.	2	4
3.8	Public Debt		2
3.8.1	Types of Public Debt	1	2
3.8.2.	Debt Redemption Methods	1	2
3.8.3.	Burden of public debt	1	2
3.8.4	Public Debt in India.	2	4
<b>4.0</b>	<b>Federal Finance</b>	<b>18</b>	
4.1	Meaning pf Federal Finance.	1	2
4.2	Principles of Federal Finance	2	2
4.3	Vertical and Horizontal Equity in fiscal federalism	2	2
4.4	Fiscal Federalism in India	3	2
4.5	Finance commission	2	2
4.5.1	Current Finance Commission	1	4
4.6	Theory of grants	1	2
4.6.1	Resource transfer from union to states	2	2
4.6.3	Criteria for Transfer of Resources	2	4
4.7	State Finance Commission	1	2
4.8	Panchayati Raj institutions	2	2

#### Text Books for Reference

1. Musgrave, R.A. and P.B. Musgrave. (1989). *Public finance in theory and practice*. Mc-Graw Hill.
2. John Cullis, Philip Jones. *Public finance and public choice*. (1<sup>st</sup> edition). New Delhi: Oxford University Press.
3. Stiglitz, Joseph E. (Third edition). *Economics of public sector*. New York: Norton.
4. Harbar, Bernard. P. (Fifth edition). *Modern public finance*. Richard Irvin Inc.
5. Bagchi, Amaresh (ed.). *Readings in public finance*. New Delhi: Oxford University Press.
6. Ulbrich, Holley H. *Public Finance in Theory and Practice*. Thomson South-Western.
7. Singh.S.K. (Ninth edition) *Public Finance in Theory and Practice*. New

Delhi: S Chand Publications.

8. Dalton. H. (eleventh edition). *Principles of Public finance*. Routledge Library Editions.

9. Taylor, Philip E. *Economics of public finance*. MacMillan.

10. Bhatia. H.L. (twenty-sixth edition). *Public finance*. New Delhi: Vikas Publishing House Pvt. Ltd.

11. Gupta, Janak. (2nd Revised & Enlarged edition). *Public economics in India: Theory and practice*. Atlantic.

## SEMESTER –V

Course Code	Title of the Course	Category	Hour	Credit
EC1815107	<b>Macroeconomic Analysis-I</b>	Core-7	6	4
EC1815108	<b>Economics of Growth &amp; Development</b>	Core-8	5	4
EC1815401	Foundations of Economics	<b>Open Course</b>	4	3
EC1815109	<b>Environmental Economics</b>	Core-9	5	4
EC1815110	<b>Introductory Econometrics</b>	Core-10	5	4

Course	Details
Code	EC1815107
Title	<b>Macro Economics I</b>
Degree	B A
Branch(s)	Economics
Semester	5
Type	Core
Total Hours	108
Hours per week	05
Credit	06

CO No.	Expected Course Outcomes <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the meaning scope and nature of macroeconomics	U	1
2	Understand and analyse the various concepts of national income accounting	AN	5,7
3	Analyse the classical model of employment and output determination	AN	5,8
4	Analyse the Keynesian model of macroeconomic equilibrium	AN	5,7,8
5	Comprehend and comment on the functioning of an economy using the IS-LM model	E	5

PSO-Program Specific outcome; CO-Course Outcome;  
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to Macroeconomics</b>	<b>30</b>	
1.1	Origin and growth of Macroeconomics	2	1
1.2	Main issues in Macroeconomics	2	1
1.3	Various schools of macroeconomic thought	3	1
1.4	Macro statics and macro dynamics	2	1
1.5	Circular flow of economic activity in a two sector economy	2	1
1.6	National Income concepts and their interrelationships	3	2
1.7	Methods of measurement of national income – Income method	2	2
1.8	Expenditure method	2	2
1.9	Output method and value added method	2	2
1.10	Difficulties in measuring national income	2	2
1.11	Social accounting method	1	2
1.12	Estimation of national income in India	3	2
1.13	Environmental concerns in national accounts	1	2
1.14	Green accounting	2	2

1.15	Net Economic Welfare	1	2
<b>2.0</b>	<b>Classical Macroeconomics</b>	<b>23</b>	
2.1	Main postulates of classical macroeconomics	3	3
2.2	Say's Law of Markets	1	3
2.3	Classical theory of employment and output determination	3	3
2.4	Wage price flexibility and full employment equilibrium	2	3
2.5	Classical theory of interest	2	3
2.6	Quantity theory of money	2	3
2.7	Cash transactions and Cash balances approaches	3	3
2.8	Classical dichotomy and neutrality	2	3
2.9	Pigou effect	1	3
2.10	Patinkin's Real balance effect	1	3
2.11	Keynes criticism of classical theory	3	3,4
<b>3.0</b>	<b>Keynesian Macroeconomics</b>	<b>26</b>	
3.1	Keynesian Revolution	2	4
3.2	Main postulates of the general theory	3	4
3.3	Consumption function	2	4
3.4	Psychological law of consumption	1	4
3.5	Savings function	1	4
3.6	Graphical, algebraic and numerical illustrations of APC, MPC, APS, MPS	4	4,5
3.7	Factors determining consumption	2	4
3.8	Investment demand Function	3	4
3.9	Determinants of investment	3	4
3.10	MEC and MEI and the role of expectations	3	4
3.11	Principle of effective demand	2	4
<b>4.0</b>	<b>Orthodox Keynesian Models</b>	<b>29</b>	
4.1	Two sector Keynesian cross model of income determination	2	4
4.2	Algebraic derivations of Keynesian model	3	4
4.3	Under employment equilibrium	2	4
4.4	The effects of changes in autonomous investment on income	2	4
4.5	Investment multiplier	3	4
4.6	Static and dynamic multiplier	3	4
4.7	Three sector Keynesian Cross model	2	4
4.8	The effects of changes in taxes and public expenditure on income	2	4
4.9	Balanced budget multiplier	2	4
4.10	Four sector Keynesian Cross model	2	4
4.11	Foreign trade multiplier	2	4
4.12	Two sector IS- LM model of income determination (model only)	4	6

### **Text Books for Reference**

1. N. Gregory Mankiw (recent edition), Macro Economics, Worth Publications, New York
2. Richard T. Froyen (recent edition), Macro Economics - Theories and Policies, Pearson Education
3. Eugene Diulio (2004), Macro Economics – Schaum’s Outline Series, Tata McGraw Hill, New Delhi.
4. Shapiro, Edward (1982), Macro Economic Analysis, Galgotia Publications (reprint edition)
5. Sampat Mukerjee (2008), Analytical Macro Economics: From Keynes to Mankiw, New Central Book Agency, Calcutta.
  
6. Andrew B. Abel (2011), Macro Economics, Pearson, Delhi.
7. Gardner Ackley. (1978). Macroeconomics- Theory and policy. Macmillan.
8. B Snowdon & Howard Vane. A Modern Guide to Macro Economics. Edward Elgar
  
9. Macroeconomics Simplified-“An introduction to keynesian and Classical macroeconomic systems” by Nicoli Natrass and G.Visakh Verma, Published by Sage, New Delhi. 2014

Course	Details
Code	EC1815108
Title	<b>Economics Of Growth &amp; Development</b>
Degree	B.A.
Branch(s)	Economics
Semester	5
Type	Hard core
Total Hours	90
Hours per week	5
Credit	04

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the basic concepts of growth & development.	U	1,3,5
2	Understand basic issues of growth & development	U	1,3,5
3	Analyse the various approaches of economic development	An	1,2,8
4	Understand the human resource development scenario of the country.	U	1,3,5
5	Create an outlook on the social issues like poverty, inequality & unemployment.	E	1,2,8
6	Understand the various theories of growth and development.	U	1,3,5
7	Differentiate between economic indicators of developed & developing economies.	An	1,2,8

\*PSO-Program Specific outcome; CO-Course Outcome;  
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to Economics of Growth and Development</b>	<b>22</b>	
1.1	Growth and Development – meaning, features, distinction, determinants and indicators.	2	2
1.2	Features of underdevelopment	1	2
1.3	Measurement of Development- Income and Non-income Indices- – GDP, PCI, PQLI, HDI, HPI, GEM – (GDI, GNH).	4	2
1.4	Development redefined	1	2
1.5	Development as a total social process, freedom and liberation	2	2
1.6	Sen’s capability approach	1	2
1.7	Poverty as Capability and Entitlement Failure- Multi- dimensional Poverty Index	3	2
1.8	Quality of life – Education – Health and Nutrition	2	2
1.9	Poverty – Absolute and Relative.	1	2
2.0	Inequality of income and wealth.	1	2
2.1	Gini coefficient —	1	2
2.2	Kuznet’s inverted ‘U’- Hypothesis.	2	2
2.3	Development gap	1	2
<b>2.0</b>	<b>Approaches to Development</b>	<b>23</b>	
2.1	Approaches to Economic Development.	3	2
2.1.1	Structuralist Approach.		2
2.1.2	Dependency Approach.		2
2.1.3	Market- Friendly Approaches.		2
2.2	Vicious Circle of Poverty.	1	2
2.3	Stage Theories of Rostow	2	2
2.4	Low Level Equilibrium Trap	3	2
2.5	Critical minimum effort thesis.	3	2
2.6	Big push Theory	2	2
2.7	Lewis model	2	2
2.8	Balanced vs. Unbalanced Growth strategy	3	2
2.9	Dualistic theories.	4	2
<b>3.0</b>	<b>Theories and Factors in the Development Process</b>	<b>20</b>	
3.1	Classical Theory of Growth.	3	4
3.2	Marxian Growth Theory	3	4
3.3	Schumpeterian Theory of Economic Development	3	4
3.4	Economic Development	1	2
3.4.1	Role of Agriculture	1	2
3.4.2	Capital Source	1	2
3.4.3	Technology.	1	2
3.5	Choice of Technique.	2	2
3.6	Trade and economic development	2	2

3.7	Process of Cumulative Causation	3	2
<b>4.0</b>	<b>Human Resource and Development</b>	<b>25</b>	
4.1	Human Resource and Development.	2	2
4.2	Man Power Planning	2	2
4.3	Concept of Intellectual Capital and its Size.	2	2
4.4	Role of Education and Health in Economic Development	2	2
4.5	Education and health as joint investment for development.	2	2
4.6	Gender and development	2	2
4.6.1	Women in the Labour Force.	2	2
4.6.2	Concept of Missing women.	2	2
4.7	Population and economic growth	1	2
4.7.1	Optimum Theory of Population	3	2
4.7.2	Theory of Demographic Transition	3	2
4.7.3.	Ageing and Younging of Population.	2	2

#### **Text Books for Reference**

1. Thirlwall, Growth and Development with Special Reference to Developing Countries. Palgrave McMillian, New Delhi.
2. Benjamin Higgins(1968), Economic Development, Universal Book Stall, New Delhi.
3. Meier G.M. (2007) Leading Issues in Economic Development, Oxford University Press, New Delhi.
4. Todaro and Smith, Economic Development, Pearson Education, New Delhi.
5. Debraj Ray, Development Economics. Oxford University Press, New Delhi.
6. Felix Raj and et. al, Contemporary Development Economics, New Central Book Agency (p) Ltd.

Course	Details
Code	EC1815109
Title	<b>Environmental Economics &amp; Human Rights</b>
Degree	B.A.
Branch(s)	Economics
Semester	5
Type	Core
Total Hours	90
Hours per week	05
Credit	04

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the continuing problems of pollution, loss of solid waste disposal and degradation of environment.	U, An.	1,2,8
2	Understand the issues like economic productivity and national security, global warming, the depletion of ozone layer and loss of biodiversity.	U, An.	1,2,8
3	Evaluate measures for protecting the environment	E	2,7,8
4	Analyse the managing environmental hazards measures.	An	2,7,8
5	Understand the major environmental concerns and to follow sustainable development practices.	U	1,3,5
6	Analyse concept of Intellectual property rights (IPRs) have become important in a biodiversity-rich country like India to protect microbes, plants and animals that have useful genetic properties.	An	1,3,5
7	Understand and analyse the local environmental concerns and problems		

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Multidisciplinary nature of environmental studies</b>	<b>21</b>	
1.1	Definition, scope and importance, Need for public awareness.	2	3
1.2	<b>Natural Resources .</b>		
1.2.1	Renewable and non-renewable resources : Natural resources and associated problems.	1	1,3
1.2.1.1	Forest resources : Use and over-exploitation, deforestation, case studies.	1	1
1.2.1.1.1	Timber extraction, mining, dams and their effects on forest and tribal people.	1	1
1.2.1.2	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.	1	1
1.2.1.3	Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.	2	1
1.2.1.4	Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.	1	1
1.2.1.5	Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources, Case studies.	1	1
1.2.1.6	Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.	1	1
1.2.1.7	Role of individual in conservation of natural resources.	1	2
1.2.1.8	Equitable use of resources for sustainable lifestyles.	2	3
1.3	<b>Ecosystems.</b>		
1.3.1	Concept of an ecosystem	0.5	2
1.3.2	Structure and function of an ecosystem	1	2
1.3.3	Producers, consumers and decomposers	0.5	2
1.3.4	Energy flow in the ecosystem	1	2
1.3.5	Ecological succession	1	3
1.3.6	Food chains, food webs and ecological pyramids	1	3
1.3.7	Introduction, types, characteristic features, structure and function of the given ecosystem:- a. Forest ecosystem	2	3
<b>2.0</b>	<b>Biodiversity and its conservation</b>	<b>25</b>	
2.1	Introduction	1	1,3
2.1.1	Bio- geographical classification of India	1	3
2.1.2	Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values.	1	2
2.1.3	India as a mega-diversity nation	1	2
2.1.4	Hot-spots of biodiversity	1	3
2.1.5	Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts	1	5

2.1.6	Endangered and endemic species of India	1	2
2.2	<b>Environmental Pollution.</b>		
2.2.1	Definition.	1	4,5
2.2.2	Causes, effects and control measures of Air pollution	0.5	1,3
2.2.2.1	Causes, effects and control measures of Water pollution.	0.5	2
2.2.2.2	Causes, effects and control measures of Soil pollution	0.5	2
2.2.2.3	Causes, effects and control measures of Marine pollution	0.5	2
2.2.2.4	Causes, effects and control measures of Noise pollution	0.5	2
2.2.2.5	Causes, effects and control measures of Thermal pollution	0.5	2
2.2.2.6	Causes, effects and control measures of Nuclear Hazards	0.5	2
2.2.2.7	Causes, effects and control measures of Solid waste Management	0.5	2
2.2.2.8	Causes, effects and control measures of urban and industrial wastes.	0.5	2
2.2.3	Role of an individual in prevention of pollution	1	2
2.2.4	Pollution case studies	1	3
2.2.5	Disaster management: floods, earthquake, cyclone and landslides.	1	3
2.3	<b>Social Issues and the Environment</b>		
2.3.1	Urban problems related to energy	1	3
2.3.2	Water conservation, rain water harvesting, watershed management	1	4,5
2.3.3	Resettlement and rehabilitation of people: its problems and concerns, Case studies	1.5	4,5
2.3.4	Environmental ethics: Issues and possible solutions	1	4,5
2.3.5	Climate change, global warming, acid rain, ozone layer depletion , nuclear accidents and holocaust, Case studies	1	4
2.3.6	Consumerism and waste products	1	2
2.3.7	Environment Protection Act	0.5	5,2
2.3.8	Air ( Prevention and Control of Pollution) Act	0.5	2
2.3.9	Water (Prevention and control of Pollution) Act	0.5	2
2.3.10	Wildlife Protection Act	0.5	2
2.3.11	Forest Conservation Act.	0.5	2
2.3.12	Issues involved in enforcement of environmental legislation	0.5	2
2.3.13	Public awareness	0.5	2
<b>3.0</b>	<b>Economics and Environment</b>	<b>16</b>	
3.1	Environmental Economics – Definition ,Scope, Meaning & importance	1	2
3.2	Environment-Economy interaction (linkages)	1	2
3.3	Material balance model.	1	2

3.4	Ecosystem- structure and functions	1	2
3.5	Relation between environment and development	1	2
3.6	Environment as a necessity and luxury	1	2
3.7	environmental issues and global concern	1	2
3.8	Global conferences:	1	2
3.8.1	Stockholm Conference	1	2
3.8.2	Helsinki Convention	1	2
3.8.3	Montreal Protocol	1	2
3.8.4	Kyoto Protocol	1	2
3.8.5	Rio Summit	1	2
3.8.6	Paris Convention	1	2
3.9	Population growth and Environment	1	2
3.10	Market failure – tragedy of commons.	0.5	2
3.11	Sustainable development-policy approach to sustainable development(An overview only).	0.5	4
<b>4.0</b>	<b>Framework and Criteria for Environmental Analysis</b>	<b>16</b>	
4.1	Evaluation of environmental benefits	2	2
4.1.1	Contingent Valuation Method	1	2
4.1.2	Hedonic approach	1	2
4.1.3	Travel cost method.	1	2
4.1.4	Preventive Expenditure Method	1	2
4.1.5	Surrogate Market Approach	1	2
4.1.6	Property value approach and Wage differential approach	1	2
4.1.7	Cost benefit analysis	1	2
4.1.8	UNIDO analysis	1	4
4.1.9	Little- Mirrlees approach .	1	4
4.2	Environmental Impact Analysis	1	4
4.3	Pollution control	1	2
4.3.1	Socially optimum level of pollution.	1	2
4.3.2	Environmental Policies and Legislations in India.	2	2
<b>5.0</b>	<b>Human Rights</b>	<b>12</b>	
<b>5.1</b>	<b>An Introduction to Human Rights, ,</b>		
5.1.1	Meaning, concept and development.	1	2
5.1.2	Three Generations of Human Rights (Civil and Political Rights; Economic, Social and Cultural Rights).	1	2
<b>5.2</b>	<b>Human Rights and United Nations</b>		
5.2.1	Contributions OF Human Rights by UN	1	7
5.2.2	Main human rights related organs	2	7
5.2.2.1	UNESCO	0.25	7
5.2.2.2	UNICEF	0.25	7
5.2.2.3	WHO	0.25	7
5.2.2.4	ILO	0.25	7
5.2.2.5	Declarations for women and children	0.25	7
5.2.2.6	Universal Declaration of Human Rights.	0.25	6,7
<b>5.3</b>	<b>Human Rights in India</b>		
5.3.1	Fundamental rights and Indian Constitution,	1	6,7
5.3.2	Rights for children and women, Scheduled Castes, Scheduled Tribes, Other Backward Castes and	1	6,7

	Minorities.		
<b>5.4</b>	<b>Local Environmental Concerns</b>		
5.4.1	Visit to local area to document environmental assets:	2	6,7
5.4.2	Community Initiatives in watershed management: Case study	1	6,7
5.4.3	Meenachil-Kodur River re-linking Programme (Kottayam District)	2	6,7
<b>5.5</b>	<b>Conservation of natural resources and human rights</b>		
5.5.1	Reports, Case studies and policy formulation of natural resources and human rights.	1	4
5.5.2	Conservation issues of western Ghats	1	4
5.5.2.1	Gadgil committee report,	1	4
5.5.2.2	Kasthuriengan report.	1	4
5.5.3	Over exploitation of ground water resources, marine Fisheries, sand mining etc.	1	4

#### **Text Books for Reference**

1. Agarwal, K.C 2001 Environmental Biology, Nidi Publ. Ltd, Bikaner.
2. Bharucha Erach, Text Book of Environmental Studies for undergraduate Courses. University Press, IInd Edition 2013 (TB)
3. Brunner. R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
4. Clark. R.S., Marine Pollution, Clarendon Press Oxford (TB)
5. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001. Environmental Encyclopedia, Jaico Publ. House. Mumbai. 1196p
6. Dc A.K. Environmental Chemistry, Wiley Eastern Ltd.
7. Down to Earth, Centre for Science and Environment (R)
8. Gleick, H.P. 1993 Water in crisis, Pacific Institute for Studies in Dev. Environment & Security. Stockholm Environment Institute Oxford University Press 473p

Course	Details
Code	EC1815110
Title	<b>Introductory Econometrics</b>
Degree	B A
Branch(s)	Economics
Semester	5
Type	Core
Total Hours	90
Hours per week	05
Credit	04

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the fundamental concepts of econometrics as a discipline	U	1,3,5,8
2	Understand the uses of econometrics in scientific analysis of economic problems	U	5
3	Think and analyse economic problems using econometric methodology	AN	5,9
4	Comprehend the basic ideas of estimation and hypothesis testing	U	1,7
5	Distinctly analyse data based on its characteristics	AN	4,5
6	Apply the learned techniques in analysing the economic theories	AP	5

\*PSO-Program Specific outcome; CO-Course Outcome;  
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to Econometrics</b>	21	
1.1	Nature and Scope of Econometrics	2	1
1.2	Methodology of econometrics	2	1,2
1.3	Objectives of econometrics	1	1
1.4	Types of data	1	5
1.5	Econometric models	1	1,2
1.6	Fundamental concepts in econometrics	4	2
1.7	Simple Regression Model	1	4
1.8	Meaning and methodology	1	4
1.9	Modern interpretation of econometrics	1	1
1.10	Population regression function (PRF)	2	4
1.11	The concept of linearity in econometrics	2	4
1.12	Stochasticity- interpretation and its significance	2	2
1.13	Sample regression function (SRF)	1	4

<b>2.0</b>	<b>Estimation and OLS</b>	<b>15</b>	
2.1	Estimation of PRF	2	4
2.2	Point and interval estimation (Basics)	2	4,2
2.3	The method of OLS	2	4
2.4	Advantages of OLS	1	4
2.5	Numerical Properties of OLS estimators	2	4
2.6	Statistical properties of OLS	2	4
2.7	Gauss - Markov Theorem	1	2
2.8	Assumptions of Classical Linear Regression Model	3	4,6
<b>3.0</b>	<b>Fitting the Model</b>	<b>8</b>	
3.1	Goodness of the Fit	1	6
3.2	R Square	2	4,6
3.3	Adjusted R square	1	4,6
3.4	Reliability and Precision of OLS estimators	2	6
3.5	Standard Error of the OLS Estimator and the Estimate	2	6
<b>4.0</b>	<b>Statistical Inference – hypothesis testing</b>	<b>9</b>	
4.1	Hypothesis testing and estimation	3	4,6
4.2	Hypothesis testing of OLS estimators	2	4
4.3	t test	2	4,6
4.4	Introduction to Multiple Regression	2	2,4,6
<b>5.0</b>	<b>Problems and applications in econometrics</b>	<b>37</b>	
5.1	Relaxing the assumptions of Classical Linear Regression Model	2	6
5.2	Heteroscedasticity-nature, estimation in its presence, detection and remedial measures	3	3,6
5.3	Autocorrelation-nature and estimation in its presence, detection and remedial measures	3	3,6
5.4	Multicollinearity-nature, estimation in its presence—detection and remedial measures	3	3,6
5.4	Distributed lag models and autoregressive models	2	3,5
5.5	Estimating finite and infinite distributed lag models	1	5,6
5.6	Koyck transformation	3	6
5.7	Adaptive Expectations model	2	6
5.8	Partial Adjustment Mechanism	2	6
5.9	Qualitative variables and dummy variable analysis	4	2,6
5.10	Simultaneous equation models	2	2,6
5.11	Modelling (demand function, supply function, consumption function, investment function, savings function, production function, market equilibrium, macroeconomic equilibrium)	10	6

### **Text Books for Reference**

- 1) Gujarati, Porter and Gunasekhar, Basic Econometrics, Fifth Edition
- 2) A Koutsoyiannis, Theory of Econometrics, Second Edition, Palgrave Macmillan
- 3) Chandan Mukherjee, Howard White and Marc Wytus, "Econometrics and Data Analysis for Developing Countries", Routledge
- 4) James H Stock and Mark W. Watson, Introduction to Econometrics, Pearson Education; 3<sup>rd</sup> edition
- 5) RamuRamanathan, Introductory Econometrics with Applications, S.Chand & Company Ltd; 5th Revised edition
- 6) Christopher Dougherty, Introduction to Econometrics. NewDelhi: Oxford University Press
- 7) Johnston .J. Econometric Methods. McGraw Hill.
- 8) Dominick Salvatore , Derrick Reagle, Schaum's Outline of Statistics and Econometrics, Second Edition, McGraw-Hill Education

## SEMESTER-VI

<b>Course Code</b>	<b>Title of the Course</b>	<b>Category</b>	<b>Hour</b>	<b>Credit</b>
EC1816111	<b>Macroeconomic Analysis II</b>	Core-11	6	5
EC1816301	<b>Choice based elective- Mathematical Economics</b>	Choice based Elective	5	3
EC1816112	<b>International Economics</b>	Core-12	4	4
EC1816113	<b>Money &amp; financial Markets</b>	Core-13	5	4
EC1816114	<b>Indian Economy</b>	Core-14	5	4
EC1816801	<b>Project</b>			2

Course	Details
Code	EC1816111
Title	<b>Macro Economics II</b>
Degree	B A
Branch(s)	Economics
Semester	6
Type	Core
Total Hours	108
Hours per week	06
Credit	05

CO No.	Expected Course Outcomes <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the dynamics of consumption	U	1,4,5,8
2	Understand the dynamics of investment	U	5,8
3	Understand the dynamics of unemployment	U	5
4	Understand the dynamics of trade cycles	U	5,8
5	Understand the dynamics of inflation	U	5,8
6	Understand the impact of money on an economy	U	5,8
7	Have a concrete idea of the post Keynesian macroeconomic framework	U	5,9

PSO-Program Specific outcome; CO-Course Outcome;  
**Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.**

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Theories of Consumption and Investment</b>	<b>21</b>	
1.1	Kuznets's consumption puzzle	2	1
1.2	Conflict between short run and long run consumption functions	2	1
1.3	Relative income hypothesis	3	1
1.4	Permanent income hypothesis	2	1
1.5	Life cycle hypothesis	2	1
1.6	Theory of capital and theory of investment	2	2
1.7	Present Value Criterion	2	2
1.8	Accelerator theory of Investment	2	2
1.9	Tobin's q theory	2	2
1.10	Super multiplier	2	2
<b>2.0</b>	<b>Money, Inflation and Unemployment</b>	<b>39</b>	
2.1	Money-classical Quantity theory approach	2	6
2.2	Keynesian liquidity preference theory and interest	2	6

	rate determination		
2.3	Liquidity trap	2	4,5
2.4	Keynes effect	1	4
2.5	Supply of money and sources	2	5,6
2.6	High powered money	1	6
2.7	Money multiplier	3	6
2.8	Measures of money supply in India	2	6
2.9	Inflation and types	2	5
2.10	Demand pull and cost push inflation	2	5
2.11	Causes and effects of inflation	2	5
2.12	Inflationary and deflationary gap	3	5
2.13	Control of inflation	2	5
2.14	Stagflation	1	5
2.15	Structural Inflation in LDC's	2	5
2.16	Types of unemployment	2	3
2.17	Okun's law	1	3
2.18	Inflation and unemployment	2	3
2.19	The Phillips curve	2	3,5
2.20	The long run Phillips curve	2	3,5
2.21	Natural rate of unemployment	1	3
<b>3.0</b>	<b>Economic fluctuations, monetary and fiscal policies</b>	<b>20</b>	
3.1	Trade cycles	1	4
3.2	Types and phases of trade cycles	2	4
3.3	Stabilisation policies-active or passive	2	4
3.4	Monetary policy objectives and targets	2	4,5,6
3.5	Fiscal policy objectives and targets	2	4
3.6	Fiscal and Monetary policy in the IS-LM context (closed economy only)	4	4
3.7	Financial Crises & Regulatory response	2	4
3.8	Rule versus discretion	2	4
3.9	Crowding out and crowding in	3	2,4
<b>4.0</b>	<b>Post Keynesian Schools of Macroeconomic Thoughts</b>	<b>28</b>	
4.1	Monetarism	2	7
4.2	Monetarist propositions and the restatement of quantity theory	4	7
4.3	New Classical Economics	2	7
4.4	Rational Expectations	2	7
4.5	Lucas' Critique (Policy ineffectiveness proposition)	2	7
4.6	Supply Side Economics	3	7
4.7	Tax cut policy and the Laffer Curve Analysis	2	7

4.8	New Keynesian School	2	7
4.9	Nominal Wage Rigidity model	2	7
4.10	Insider-outsider model	3	7
4.11	Menu cost model	2	7
4.12	Efficiency wage model	2	7

#### **Text Books for Reference**

1. B Snowdon & Howard Vane. A Modern Guide to Macro Economics. Edward Elgar
2. R T Froyen . (Recent Edition)Macroeconomics – Theories and Policies. Pearson Education
3. N Gregory Mankiw. Macroeconomics. New York; Worth Publications
4. R Dornbusch, S Fisher. Macroeconomics. Tata McGraw Hill
5. Arthur O’ Sullivan et al. (2015). Macroeconomics principles, applications and Tools. New Delhi: Pearson Education South Asia.  
  
Macroeconomics Simplified-“An introduction to keynesian and Classical macroeconomic systems” by Nicoli Natrass and G.Visakh Verma,Published by Sage,New Delhi.2014
6. C Ram Manohar Reddy (2017) De monetisation and Black Money, Orient Black Swann.
7. G Omkarnath (2012) Economics – A primer for India, Orient Black Swann.

Course	Details
Code	EC1816112
Title	International Economics
Degree	B A
Branch(s)	Economics
Semester	5
Type	Core
Total Hours	72
Hours per week	06
Credit	04

CO No.	Expected Course Outcomes <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the basic principles that tend to govern the dynamics of internal and International Transactions	U	1
2	Understand the flow of trade in goods, services, resources and technology at a global level.	U	3
3	Think critically and solve problems relating to International Economics.	Ap	5
4	Have a good conceptual understanding of the key concepts and practical applications of both international trade and international finance.	U	1
5	Outline the development trade theory historically, differentiating standard classical and orthodox trade theories.	An	5
6	Analyse the links between trade, international finance, economic growth and globalisation, with a particular emphasis on the experiences of developing countries.	An	5
7	Critically comment on and participate in current debates on international economic policy.	An	5

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to International Economics and Trade Theories</b>	<b>23</b>	
1.1	Nature and scope of international economics	1	2
1.2	Differences between internal and international trade	1	2
1.3	Inter industry trade and intra-industry trade	2	2

1.4	Terms of trade –types, and factors affecting terms of trade	2	2
1.5	Community indifference curve	2	2
1.6	Classical theory -Theory of absolute cost advantage, Theory of Comparative cost advantage	3	2
1.7	Reciprocal demand theorem - offer curves - Opportunity cost theorem	3	2
1.8	Heckscher - Ohlin theory & Leontief's paradox	3	2
1.9	Factor price equalization theorem	2	2
1.10	Gains from Trade, static and dynamic gain from trade	2	2
1.11	Theory of immiserizing growth	2	2
<b>2.0</b>	<b>Balance of Payments</b>	<b>12</b>	
2.1	Meaning and structure of balance of payments	2	2
2.2	Equilibrium and disequilibrium in BOP	2	2
2.3	Measures to correct disequilibrium- monetary and non-monetary measures	3	2
2.4	Devaluation, depreciation and Balance of payments	3	2
2.5	Elasticity approach-Marshall- Learner condition – J-curve effect	2	2
<b>3.0</b>	<b>Foreign Exchange Market</b>	<b>20</b>	
3.1	Functions of foreign exchange markets	2	2
3.2	Forex Market participants.-Demand and supply of foreign exchange	2	2
3.3	Devaluation, revaluation, appreciation, depreciation	2	2
3.4	Determination of equilibrium exchange rates - Factors influencing exchange rates	3	3
3.5	Theories of exchange rate determination- The Mint Parity Theory, Purchasing Power Parity theory, balance of payment theory	4	2
3.6	Fixed and floating exchange Rate, spot and forward rates, hedging, speculation, arbitrage, futures, options and currency swaps.	3	2
3.7	Exchange rate system in India-managed floating	2	2
3.8	partial and full convertibility on current and capital accounts	2	2
<b>4.0</b>	<b>International Monetary and Trade System</b>	<b>17</b>	
4.1	Commercial Policy	1	2
4.2	Free trade- preferential trade area, free trade area, customs union.	2	2
4.3	Trade creation and trade diversion	2	2
4.4	protection-tariffs and quotas and their effects	2	2
4.5	Optimum tariff	1	2

4.6	other non-tariff barriers	2	2
4.7	Economic Integration-meaning, forms and benefits- BRICS	2	2
4.8	Gold standard &The Bretton Woods System	1	2
4.9	International Monetary Fund - World Bank	2	2
4.10	GATT -Uruguay round, WTO.	2	2

**Text Books for Reference**

1. Dominic Salvatore, (Recent Edition), International Economics: Trade and Finance, John Wiley and Sons, Limited.
2. Soderstein, Bo and Reed. G. (2005), International Economics, 3<sup>rd</sup> edition, Mc Millian Press Ltd.– International Economics.
3. Paul Krugman and Maurice Obstfeld (Recent Edition), International Economics: Theory and Policy, Pearson Education, Delhi.
4. Dominic Salvatore, Schaum's Outlines, Theory and Problems of International Economics. Tata MacGraw Hill, Delhi.

**Text Books for Enrichment**

1. Kindle Berger C.P International Trade, R.D Irwin, Homewood
2. K.C Rana and K.N Varma, Internal Economics, Visual Publishing
3. Francis Cherunilam, International Economics, Mc Graw Hill, Education

Course	Details
Code	EC1816301
Title	<b>Mathematical Economics</b>
Degree	B A
Branch(s)	Economics
Semester	6
Type	Core
Total Hours	90
Hours per week	05
Credit	03

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Study the mathematical tools for analysing economic theories	U	3,4,8,9
2	Understand the basic functional forms used in economic analysis	U	4,5
3	Apply the rules of differentiation to mathematically solve economic problems that they come across in the study	AP	5,8
4	Apply the rules of integration to mathematically solve economic problems that they come across in the study	AP	5,8,9
5	Understand and apply the basics of optimisation and constrained optimisation	AP	5,8,9
6	Understand the areas of application of different mathematical tools	U	5,9
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.</b>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Functions of one real variable</b>	<b>27</b>	
1.1	Meaning	2	1
1.2	Types of functions - constants	2	2
1.3	Polynomial	1	2
1.4	Rational	1	2
1.5	Exponential	1	2
1.6	Logarithmic	1	2
1.7	Graphs and graphs of functions	2	2
1.8	Limit and continuity of functions	2	2

1.9	Slope of curvilinear function	2	2
1.10	The Derivatives	2	3
1.11	Rules of differentiation	4	3
1.12	Higher order derivatives	2	3
1.13	Implicit differentiation	2	3
1.14	Economic applications of differentiation	3	3
<b>2.0</b>	<b>Calculus of multivariable functions</b>	<b>30</b>	
2.1	Functions of several variable	2	3
2.2	Partial derivatives	3	3
2.3	Rules of partial derivatives	3	3
2.4	Second order partial derivatives	3	3
2.5	Optimisation of multivariate functions	3	5
2.6	Constrained optimisation with Lagrange multiplier	3	5
2.7	Differentials	3	3,5
2.8	Total and partial differentials	3	3,5
2.9	Total derivatives	3	3,5
2.10	Implicit and inverse function rules-economic applications	4	6
<b>3.0</b>	<b>Integral Calculus</b>	<b>33</b>	
3.1	The indefinite integral	2	4
3.2	Integration	4	4
3.3	Rules of integration	4	4
3.4	Integration by substitution and by part	4	4
3.5	The definite integral	2	4
3.6	Properties of definite integrals	2	4
3.7	Area under a curve	3	4
3.8	Area between curves	3	4
3.9	Economic application of integration	3	4,6
3.10	Consumer surplus	3	4,6
3.11	Producer surplus	3	4,6

**Text Books for Reference**

1. Chiang Alpha C , Fudamental Methods of Mathematical Economics,Economics series, McGraw Hill
2. Dowling,Edward T(2008): Introduction to Mathematical Economics,3<sup>rd</sup> Ed,Schaum'sOutline Series, McGraw Hill.( Chapters 3-6, 16-17)
3. Knut Sydsaeter, Peter Hammond and Arne Strom(2012 ): Essential Mathematics for Economic Analysis 4<sup>th</sup> Ed, Pearson India,.( Chapters-4-9)
4. MikWisneiwski(1998): Introductory Mathematical Methods in Economics, 2<sup>nd</sup> Ed McGraw- Hill,. (Chapters -7-10 and 13).
5. Michael Hoy,et.al(2009): Mathematics for Economics,2<sup>nd</sup>Ed,PHI.(Chapters-Part IV-11-12 and Part V-16).
6. Geoff Renshaw(2009): Maths for economics, 2<sup>nd</sup> Ed,OUP.(Ch-6-9, 14-16 and 18).
7. K.Holden and A.W.Pearson(2010): Introductory Mathematics for Economics and Business,2<sup>nd</sup> Ed. Macmillan.( Ch-5-7).
8. Ian Jacques(2015): Mathematics for Economics and Business,5<sup>th</sup>Ed,PH. ( Ch-4-6).
9. Akihito Asano(2013): An Introduction to Mathematics for Economics, CUP, (Ch-4-7)

Course	Details
Code	EC1816113
Title	<b>Money &amp; Financial Markets</b>
Degree	B A
Branch(s)	Economics
Semester	6
Type	Core
Total Hours	90
Hours per week	05
Credit	04

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand financial system as the circulatory system and money as the life blood of an economy	U	1,5,8
2	Clearly understand the structure of Indian financial system	U	7,8
3	Differentiate between banking and non banking financial institutions and their respective functions	U	7,8
4	Clearly understand the structure of Indian financial system	U	1,8
5	Differentiate between capital market and money market, their respective functions, institutions and instruments	U	1,8
6	Clearly understand the various regulatory authorities of the Indian financial system and their functions	U	1,5
7	Analyse the limitations of Indian financial system	AN	1,5
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.</b>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Financial System</b>	<b>14</b>	
1.1	Structure of Indian Financial System	3	1,2
1.2	Banks and NBFIs	3	3
1.3	Insurance Companies	2	3
1.4	Pension funds	2	3
1.5	Mutual Funds	2	3
1.6	Asset Management Companies	2	3
<b>2.0</b>	<b>Money and Central Banking</b>	<b>20</b>	
2.1	Static and Dynamic Functions of money	3	1
2.2	Near money	1	1
2.3	Inside money and Outside money	2	1
2.4	Monetary aggregates-M1,M2,M3, M4	3	1
2.5	High powered money	2	1
2.6	Money multiplier	2	1
2.7	RBI-functions	3	3
2.8	Instruments of Monetary policy	2	3
2.9	Repo and Reverse Repo	1	3
2.10	Base rate	1	3
<b>3.0</b>	<b>Banking</b>	<b>18</b>	
3.1	Commercial banking in India	2	2,3
3.2	Structure and functions of commercial banks	3	2,3
3.3	Profitability versus liquidity	1	3
3.4	Credit creation and credit multiplier	2	3
3.5	Non-Performing Assets	2	3
3.6	Digital Payment System in India	2	3
3.7	RTGS	1	3
3.8	NEFT	1	3
3.9	Prepaid Payments instruments	1	3
3.10	Latest developments in banking sector	3	3,7
<b>4.0</b>	<b>Money market</b>	<b>17</b>	
4.1	Money Market-Functions	2	5
4.2	Structure of money market	2	2,5
4.3	Call Money Market	2	5
4.4	Treasury bill market	1	5
4.7	CBLO market	1	5
4.8	Collateral Loan Market	1	5
4.9	Acceptance Market	2	5
4.10	Bill or Discount Market	2	5
4.11	Features of Indian Money Market	2	5
4.12	Defects of Indian money market	2	5,7
<b>5.0</b>	<b>Capital market</b>	<b>21</b>	
5.1	Capital Market –Functions	2	5
5.2	Structure of primary market and secondary market	3	2,5

5.3	Functions of primary market and secondary market	3	5
5.4	Methods of Public issue	3	5
5.5	IPO	1	5
5.6	FPO	1	5
5.7	Book building	2	5
5.8	Major investment groups	1	5
5.9	Retail Investors	1	5
5.10	Domestic Institutional Investors	1	5
5.11	Foreign Portfolio Investors	1	5
5.12	SEBI-Functions	2	6

#### **Text Books for Reference**

1. Frederik S Mishkin, The Economics of Money, Banking and Financial Markets, Eleventh Edition, Pearson Education.
2. L.M. Bhole, JitendraMahakud. Financial institutions and markets – Structure, growth and innovations. (Latest edition), Tata McGraw Hill Education Private Limited, New Delhi
3. MY Khan, Indian Financial System, MacGraw Hills Education Pvt. Limited India.
4. F. S. Mishkin and S. G. Eakins, Financial Markets and Institutions, Pearson Education, 6th edition, 2011.
5. Bharati V. Pathak, Indian Financial System, Fourth Edition, Pearson Education, New Delhi
6. N. Jadhav, Monetary Policy, Financial Stability and Central Banking in India, Macmillan, 2006.

#### **Additional Reading**

Hajela, T N (2015): History of Economic Thought, 18th ed, Ane Books, New Delhi.

Haney, Lewis H (1920): History of Economic Thought, Mc Milan, New York

Hausman, Daniel M. (1992): Essays on philosophy and Economic Methodology, Cambridge University Press.

Hunt, E.K and Mark Lautzenheiser(2011): History of Economic Thought: A Critical Perspective, 3rd ed, Prentice Hall of India, New Delhi.

Hunt, Elgin F and David C. Colander (2010): Social science-An introduction to the study of Society, 13 th ed, Pearson, New Delhi.

Kaufmann, Felix (1958): Methodology of the Social Sciences, The Humanities Press, New York.

Krishna swami, O P and M Ranganathan (1993): Methodology of Research in Social Sciences, Himalaya Publishing House, New Delhi.

Lipsey, Christopher, T S Ragan, Paul A Storer (2007) : Micro Economics, 13 th ed, Pearson.

Lipsey, Crystal (1999): Principles of Economic Analysis, 9th Edition, Oxford University Press.

Mankiw, Gregory (2013) : Principles of Micro Economics, 6th ed, Cengage Learning India Private limited, Delhi.

Perry, John A and Erna K Perry (2010): Contemporary Society – An introduction to Social Science, 12 th ed, Pearson, New Delhi.

Samuelson P and Nordhaus (2002): Economics 7th ed, Tata McGraw-Hill.

Samuelson, P (1948) : Foundations of Economic Analysis, Harvard University Press

Course	Details
Code	EC1816114
Title	<b>Indian Economy</b>
Degree	B.A.
Branch(s)	Economics
Semester	6
Type	core
Total Hours	90
Hours per week	05
Credit	04

CO No.	<i>Expected Course Outcomes</i>	Cognitive Level	PSO No.
	<i>Upon completion of this course, the students will be able to:</i>		
1	Understanding of various phases of India's economic growth	U	1,3,5
2	Understanding of the demographic changes and its impact on Gross Domestic Product	U,An	1,3,5,8
3	understand the philosophy of economic planning in India	U,An	1,2,5,8
4	Evaluate the Indian agricultural sector, its current issues and future prospects	U,An	1,2,5,8
5	Evaluate the Indian industrial sector, its current issues and future prospects.	U	1,3,5
6	Create a comprehensive outlook towards India's economic growth.	An	1,2,8

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Economic Development Strategy since Independence</b>	<b>25</b>	
1.1	Mixed Economic Framework	1	2
1.2	Key and Strategic Role of PSUs	3	2
1.3	Economic Crisis of 1990	3	2
1.3.1	Macro Economic Reforms Implemented Since 1991	3	4
1.4	Structural Adjustment Programmes	1	2
1.5	Globalisation, Liberalisation and Privatisation	2	2
1.6	Performance of Indian Economy before and after Economic Reforms	3	4
1.7	External Sector Reforms since 1991	2	4
1.8	Trade and Currency Reforms	2	2
1.9	Foreign capital		2
1.9.1	FDI	2	2
1.9.2	Portfolio investment	2	2
1.9.3	MNC's	1	2

<b>2.0</b>	<b>Demographic Features</b>	<b>15</b>	
2.1	Population Trends	1	4
2.1.1	Size, structure (sex and age).	3	
2.1.2	Characteristics of India's Population.	1	
2.2	population change	1	4
2.2.1	Rural- Urban Migrations	2	
2.2.2	Occupational Distribution	1	
2.3	Problems of over population	1	2
2.4	Population Dividend	2	2
2.5	Population policy	1	2
2.6	Gender Inequality	1	2
2.7	Women Empowerment	1	2
<b>3.0</b>	<b>Agriculture, Industry and Service Sector</b>	<b>20</b>	
3.1	Role of Agriculture in Indian Economy	1	2
3.2	Land Reforms	1	2
3.3	New Agricultural Strategy.		2
3.3.1	Green Revolution	1	2
3.3.2	Need for Second Green Revolution	1	2
3.4	Agricultural Growth and Performance	1	2
3.5	New Agricultural Policy	2	2
3.6	Changes in Land use and Cropping Pattern	1	4
3.8	Agricultural Finance and Issues.	1	2
3.9	Agriculture during Economic Reform Period	1	4
3.10	WTO and Indian Agriculture.	2	4
3.11	Industrial growth during pre reform and post reform period.	2	4
3.12	Industrial Policy Resolution of 1956 and 1991.	2	2
3.13	Role of Micro, Small and Medium Scale Industries (MSMEs) in Indian Economy Its problems and remedies	1	4
3.13.1	Problems of , Small and Medium Scale Industries (MSMEs	1	2
3.13.2	Remedies		2
3.14	Performance of Service sector in IndianEconomy.	2	4
<b>4.0</b>	<b>Economic Planning and Development Issues</b>	<b>15</b>	
4.1	Meaning and rationale of Planning		2
4.1.1	Basic Strategies of Planning	1	2
4.1.2	Objectives of Planning.	1	2
4.1.3	Achievements & Failures of Planning in India	1	2
4.1.4	Strategies of 12th Plan	1	2
4.3	Inclusive Development	1	2
4.4	NITI Aayog	1	2
4.5	Trends in India's National Income	1	4
4.6	Magnitude of poverty and inequality in India.	1	4
4.7	Unemployment.	1	4

4.8	Black money and corruption in India	1	2
4.9	Rising prices	1	2
4.10	Energy crisis of India	1	2
4.10	Micro finance and its significance	1	2
4.11	Importance of infrastructure in India's economic development	1	2
<b>5.0</b>	<b>Kerala Economy</b>	<b>15</b>	
5.1	Features of Kerala Economy	1	2
5.2	Kerala model of development	2	4
5.3	Structural change and economic growth in Kerala	1	4
5.4	Land reforms	1	2
5.5	current issues in agriculture	1	2
5.6	Food crisis	1	2
5.7	changes in cropping pattern	1	2
5.8	Agricultural indebtedness	1	2
5.9	Unemployment in Kerala	1	2
5.10	IT sector in Kerala	1	2
5.11	Fiscal crisis in Kerala	1	2
5.12	Gulf migration in Kerala	1	2
5.13	Energy policy and energy crisis of Kerala.	1	2
5.14	Decentralized planning in Kerala.	1	2

#### Text Books for Reference

1. A. Koutsoyiannis. (1979). Modern Microeconomics. Palgrave MacMillan
2. Dominick Salvatore. Micro Economics Theory and Application. 4<sup>th</sup> Ed. New Delhi: Oxford University Press
3. Robert S. Pindyck, et al. (recent edition). Micro Economics. Delhi: Pearson Education.
4. G.S. Maddala, Ellen Miller. (2004). Micro Economics - Theory and Applications. Delhi: Tata McGraw Hill.
5. Case, Karl E. & Ray C. Fair. (2007). Principles of Economics. (8<sup>th</sup> edition). Delhi: Pearson Education.
6. Varian. H.(2000). Intermediate microeconomics: A modern approach. Affiliated east West Press Pvt. Ltd.
7. Watson and Getz. (1996). Price Theory and its uses. New Delhi: AITBS Publisher.
8. Robert Y. Awh. Microeconomics- Theory and Applications. John Wiley and Sons Inc. (RYA).
10. Sen. A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
11. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
12. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

#### Text Books for Enrichment

1. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010. 13. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGrawHill (India), 2009.
2. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
3. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

## OPEN COURSE

Course	Details
Code	EC1815401
Title	<b>FOUNDATIONS OF ECONOMICS</b>
Degree	B A
Branch(s)	Economics
Semester	5
Type	Core
Total Hours	72
Hours per week	04
Credit	03

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Develop the analytical skills needed to work successfully in the field, including the study of logical analysis.	U	3
2	Develop competence in the assimilation of complex economic arguments, the analysis of practical economic issues, logical thought, quantitative techniques, mathematical skills, and effective communication.	An	8
3	Understand, analyse, evaluate in an objective understanding of economic reality	C	

PSO-Program Specific outcome; CO-Course Outcome;  
**Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.**

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Basic Concepts of Economics</b>	<b>12</b>	
1.1	10 principles of Economics-	2	2
1.2	Subject and branches of Economics	1	2
1.3	partial and general equilibrium analysis- ceteris paribus assumption	1	2
1.4	deduction and induction	1	2
1.5	basic economic problems- efficiency and equity	1	2
1.6	production possibility curve	1.5	2
1.7	Utility - total and marginal	0.5	2
1.8	Water diamond paradox	1	2
1.9	Consumer surplus	1	2
1.10	Law of Demand	1	2
1.11	elasticity of demand - price elasticity – Income and cross	1	2
1.12	Law of supply	0.5	2
1.13	Short and long run	0.5	2

1.14	National income – meaning - components of national income	2	3
<b>2.0</b>	<b>Public Economics</b>	<b>16</b>	
2.1	State vs Market	1	2
2.2	public revenue	1	2
2.3	public expenditure	2	2
2.4	tax and non-tax revenue	1	2
2.5	direct and indirect taxes	2	2
2.6	goods and service tax in India	1	2
2.7	budget – types	2	2
2.8	fiscal deficit - revenue deficit – deficit financing	1	2
2.9	public debt	2	2
2.10	trade cycle and its phases	1	2
2.11	Fiscal and monetary policies as tools for combating inflation and deflation.	2	2
<b>3.0</b>	<b>Financial System and International Trade</b>	<b>24</b>	
3.1	Negotiable and non-negotiable instruments – cheques – drafts - bills of exchange – promissory notes-letter of credit - certificate of deposits – commercial papers	2	2
3.2	banking and non-banking institutions	2	2
3.3	commercial banks	2	2
3.4	Core Banking, Internet Banking, Mobile Banking, ATM/Debit & Credit Cards,IFSC,NEFT,RTGS	2	2
3.5	NPA in Indian banking sector	1	2
3.6	RBI – functions	2	2
3.7	money and capital market – major financial instruments – shares, debentures and bonds	2	2
3.8	Insurance: meaning, nature and types	1	2
3.9	stock exchange – BSE, NSE- stock market indices	1	2
3.10	SEBI - mutual funds	1	2
3.11	Terms of trade	2	2
3.12	balance of trade & balance of payments	2	2
3.13	foreign exchange - exchange rate – spot – forward – fixed – floating	1	2
3.14	- IMF, World Bank – WTO	2	2
<b>4.0</b>	<b>Indian Economic Development</b>	<b>20</b>	
4.1	An overview of Planning in India	3	2
4.2	Planning Commission –NITI Aayog	2	2
4.3	Finance Commission	2	2
4.4	Green revolution - Second Green Revolution-Rainbow revolution	2	2
4.5	Liberalization - Privatization - Globalization (LPG)	3	2
4.6	NABARD	2	2
4.7	Demonetisation in India	2	3
4.8	Major demographic features of India	2	2
4.9	Kerala model of development	2	3

**Text Books for Reference**

1. R R Paul (2008), Monetary Economics, Kalyani Publishers, Lidhiyana
2. V K Bhalla (2008), Investment Management, S. Chand & Co., New Delhi.
3. Bo Sodersten & Reed Dominic, International Economics, palgrave mcmillan
4. Samuelson (2009), Economics, Tata McGraw Hill, New Delhi.

**Text Books for Enrichment**

1. Gaurav Datt & Ashwani Mahajan, (recent edition) Datt & Sundharam Indian Economy, S. Chand & Co., New Delhi ( recent edition)
2. Alwin Prakash, Kerala;'s Economic Development (2004),Sage Publications, New Delhi.
3. Meera Bai M (ed) (2008), Kerala Economy, Serials Publication, New Delhi.

Course	Details
Code	EC1815402
Title	<b>Economics Of Population</b>
Degree	B A
Branch(s)	Economics
Year/Semester	5
Type	Open Course
Credits	3

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the basic principles that tend to govern the dynamics of Demography	U	1
2	Understand the flow of population and its impact upon various regions of the world	U	3
3	Think critically and solve problems relating to Population growth	Ap	5
4	Have a good conceptual understanding of the key concepts and practical applications of theories of Population.	U	1
5	Outline the dynamic aspects of composition of population in local, national and international scenario	An	5
6	Analyse the concept of fertility, mortality, in local national and global perspective	An	5
7	Understand the impact of migration	U	5
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.</b>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Introduction to the study of Demography</b>	<b>22</b>	
1.1	Definition, scope and historical background of formal demography	2	1
1.2	Recent population trends in World - More Developed Regions - Less developed Regions and Least Developed Regions of the world	2	3,5,6
1.3	components of population growth	2	1,2

1.4	population composition- age composition in more developed and less developed regions of the world	2	1,3,4
1.5	population growth in India	2	1,3,4
1.6	Basic demographic methodology	2	1,2
1.7	rates in demography	2	1,2
1.8	birth (fertility)	1	1,3
1.9	mortality	1	1,3
1.10	marriage (Nuptiality)	2	1,2
1.11	infant mortality rate	1	2,3
1.12	computation of infant mortality rate	1	1,2,3
1.13	Population projection- sources of population data - sources of demographic data in India.	2	2,4
<b>2.0</b>	<b>Theories of population</b>	<b>12</b>	
2.1	Thomas Robert Malthus - Micheal Thomas Sadler - an overview of sociological theories	1	2,3,4
2.2	optimum theory of population	1	1,2
2.3	demographic transition theory	1	1
2.4	demographic dividend	1	2,3
2.5	population and economic growth	2	1,2,3
2.6	economic characteristics of population	2	2,3,5
2.7	economically active population	1	1,2
2.8	work participation and unemployment	1	2,4
2.9	Working population and work participation rate in India.	2	2,5,6
<b>3.0</b>	<b>Composition of Population</b>	<b>20</b>	
3.1	Pattern of sex and age structure in developed and developing countries	1	2,4
3.2	determinants of age and sex structure	2	1,2
3.3	demographic effects of age	2	1
3.4	sex- structural transition	2	2
3.5	ageing and younging of population	2	3
3.6	feminization	2	1
3.7	Determinants of population ageing	1	3
3.8	ageing index-median age - dependency ratio	1	1
3.9	potential support ratio and parental support ratio	1	1,2,3
3.10	Madrid plan	2	5,6
3.11	concepts of active ageing - healthy ageing - successful ageing and productive ageing	2	5,6
3.12	age structure transition and population ageing in India and Kerala	2	5,6
<b>4.0</b>	<b>Fertility - Mortality - Nuptiality</b>	<b>12</b>	
4.1	Trends and differentials in fertility transition in India and Kerala	2	4,5,6
4.2	causes of demographic changes in South India	2	4,5,6
4.3	trends and differentials in mortality in India and	2	5,6

	Kerala		
4.4	Foetal and infant mortality	2	1,2
4.5	life expectancy - still birth, abortion and prenatal mortality	1	1,2
4.6	laws relating to abortion in India	1	1,5,6
4.7	epidemiological transition	1	1,5,6
4.8	morbidity in Kerala	1	1,2,5,6
5.0	<b>Migration</b>	<b>06</b>	
5.1	Concepts - types - laws	2	1,2
5.2	Theories of migration- Todaro- Fei-Rani's models	2	4,5,7
5.3	cause and effect of migration	2	1,4,5,7

### References

1. D.J.Bogue - Principles of Demography, Wiley 1971
2. Spiegelmon M- Introduction to Demography
3. H.S.Shryok - The Methods and Materials of Demography
4. A.A.Bhande - Principles of population studies, Himalaya and T. Kanitkar
5. Debraj Ray - Development Economics OXFORD, INDIA
6. RobVos, Jose Antonio Ocampo and Ana Luiza Cortez - Ageing Development, Orient and Black swan
7. John C Cladwe P.H.Reddy - Causes of Demography change - Pat Cald Well Experimental Research in SouthIndia, The University of Wisconsin press.
8. S. Iruday Rajan, US Misra & P.Sankara Sarma - India's Elderly -Burden or Challenge sage publications, New Delhi
9. S.Irudaya Rajan - Social Security for the elderly- experiments from South Asia, Routledge
10. Roland Pressat - Demographic analysis projections on Natality, Fertility and Replacement,

- Aldine Transaction- A division of  
Transaction Publishers.
11. D.Jayraj and S.Subramanian - Poverty inequality and population - OXFORD
  12. P.K.Majumdar - India's Demography: Changing Demographic Senario in India, Rawat publications
  13. Giridhar Kumar, Sathyanarayana, James, Alam Cambridge - Population Ageing in India,
  14. Asis Kumar Chattopadhyay Anuj Kumar Saha - Demography: Techniques and Analysis, Viva Books Private Limited.
  15. Rajendra K Sharma - Demography and population problems Atlantic Publishers and Distribtors.
  16. N.Jayapalan - Social Demography, Book Enclave publishers
  17. D.Radhadevi - Economics of Ageing, Serials publication
  18. Kerala state planning Board - Growing old in Kerala
  20. K.C Zachariah, S.Irudaya Rajan - Kerala's Demographic transition, Determinants and consequences, Sage Publications
  21. A.K.Shiva kumar Pradeep panda Rajani R.Ved - Hand Book of Population and Development
  22. UN(2002) - Political Declaration and Madrid plan of Action on Ageing, Second world Assembly on Ageing.
  23. U.N - World population prospects (for various years) world population Ageing 2013 [www.un.org/esa/population/publication](http://www.un.org/esa/population/publication).
  24. US census bureau - An ageing world [www.census.gov/prod](http://www.census.gov/prod).
  25. Office of the Registrar General - Compendium of India's fertility- and Census Commission of India Mortality indicators.

Course	Details
Code	EC1815403
Title	<b>BUSINESS ECONOMICS</b>
Degree	BA
Branch (s)	Economics
Semester	5
Type	<b>Open</b>
Total hours	72
Hours per week	04
Credit	03

CO No	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to</i>	Cognitive Level	PSO No.
1	Discuss the application of economic theory and the tools of decision science to examine how an organization can achieve its aims and objectives most efficiently	U	3
2	To understand how analytical tools of micro and macro economic theories are applied for solving many practical business problems	An	8
3	To understand the fundamentals of starting a business concern	U	3
PSO- Program Specific outcome, CO – Course Outcome: Cognitive Level: Remember; U- Understanding; Ap- Apply; An- Analyze; E- Evaluate; C- Create			

Module	Course Description	Hours	CO.No.
<b>1.0</b>	<b>Introduction to Business Economics</b>	<b>12</b>	
1.1	Scope and Methods of Business Economics	1	2
1.2	Role in Managerial decision making	1	2
1.3	Decision making	1	2
1.4	Approaches to managerial decision making theory and firms	1	2
1.5	Basic concepts in economics	1	2
1.6	Scarcity – choice – resource allocation	1	2
1.7	Fundamental concepts and principles	1	2
1.8	Incremental concept	1	2
1.9	Time perspective	1	2
1.10	Discounting principle	1	2
1.11	Opportunity cost concept	1	2
1.12	Equi marginal principle (concepts only)	1	2
<b>2.0</b>	<b>Demand Analysis and Forecasting</b>	<b>15</b>	
2.1	Types of demand	1	2
2.2	Determinants of demand	2	2
2.3	Law of demand	1	2
2.4	Changes in demand	0.5	2
2.5	Elasticity of demand- Income , price , cross (with numerical illustration)	3	2
2.6	Demand determinants of non-durable consumer goods, durable consumer goods, capital goods	2	2

2.7	Demand forecasting - types	2	2
2.8	Methods of demand forecasting	2	2
2.9	Forecasting demand for new products	1	2
2.10	Criteria a good forecasting method	0.5	2
<b>3.0</b>	<b>Production and Cost Analysis</b>	<b>15</b>	
3.1	Production function	1	2
3.2	Production function with empirical studies – Cobb Douglas production function	1	2
3.3	Cost concepts and classification	1	2
3.4	Accounting cost and economic cost	0.5	2
3.5	Actual cost and opportunity cost	0.5	2
3.6	Explicit cost and implicit or imputed cost	1	2
3.7	Out of pocket cost , book cost, book cost	1	2
3.8	Direct and indirect cost	1	2
3.9	Historical cost and replacement cost	1	2
3.10	Short run and long run cost	1	2
3.11	Total cost, average cost, marginal cost	1	2
3.12	Cost estimation	2	2
3.13	Accounting cost method, engineering cost method	1	2
3.14	Objective of the firm	1	2
3.15	Managerial theory of firm by William J Raumol	1	2
<b>4.0</b>	<b>Pricing and Profits</b>	<b>15</b>	
4.1	Pricing methods	1	2
4.2	Cost oriented pricing, competition oriented pricing	1	2
4.3	Practical methods of pricing	2	2
4.4	Peak load pricing, Pricing of new product	1	2
4.5	Multi product pricing	1	2
4.6	Duel pricing, administered pricing, transfer pricing	1	2
4.7	Profit, profit theories	1	2
4.8	Risk bearing theories, market imperfection theory, innovation theory	2	2
4.9	Accounting and economic profit	2	2
4.10	Profit planning	1	2
4.11	Break even analysis (with numerical illustration)	2	2
<b>5.0</b>	<b>Long term Investment Decisions</b>	<b>15</b>	
5.1	Capital Budgeting, meaning and need, demand for capital	2	2
5.2	Methods of investment criteria	1	2
5.3	Payback period method	2	2
5.4	Average rate of return method	2	2
5.5	Discounted cash flow method	2	2
5.6	Net present value method	1	2
5.7	Profitability index	1	2
5.8	Internal rate of return method ( with numerical illustration)	2	2
5.9	Cost of capital	2	2

### **Text Book for References**

1. Dominick Salvatore. (2008) Managerial economics: Worldwide applications. New Delhi.
2. Nellis and Parker (2006). Principles of Business Economics. Pearson Education. New Delhi.
3. P.I. Mehta. Managerial Economics. Sultan Chand Publications.
4. H.L. Ahuja. Business Economics. S.Chand
5. S. Sankaran. (2002). Managerial Economics. Margham Publication
6. Mankar and Pillai. (2000). Business and managerial Economics. Himalaya.
7. Mote Paul and Gupta (2000) Managerial Economics. Tata McGraw Hill.
8. R.L. Varshney and K.L. Maheshwari. Managerial Economics. Sultan Chand
9. Sampat Mukherjee. Business and Managerial Economics. New Central Book Agency (p) Ltd
10. Francis Cherunilam. Business Economics.

## Complementary Course Semester- I

Course	Details
Code	EC1811201
Title	<b>PRINCIPLES OF ECONOMICS</b>
Degree	B.A.
Branch(s)	Economics
Year/Semester	1
Type	complementary
Total Hours	108
Hours per week	06

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the fundamentals of microeconomics	U	3 of HY
2	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy	U	3 of HY
3	Get introduced to the framework for learning about consumer behaviour and analyzing consumer decisions	U	3 of HY
4	to study about firms and their decisions about optimal production	An	3 of HY
5	to solve basic microeconomic problems,	An	3 of HY
6	Use the fundamental techniques to think about a number of policy questions related to the operation of the real economy.	Ap	3 of HY
7	to understand introductory microeconomic theory in a local, regional, national and international scenario	U	3 of HY
8	Understand the fundamentals of microeconomics	U	3 of HY

9	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy	U	3 of HY
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; CCreate.</b>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>Nature and Scope of Economics</b>	<b>12</b>	
1.1	Definitions	3	2
1.1.1	Wealth definition		2
1.1.2	Welfare definition		2
1.1.3	Growth definition		2
1.2	Methodology of economics	2	2
1.3	Significance of economics	2	2
1.4	Micro and macro economics	2	2
1.5	Positive and normative economic	3	2
<b>2.0</b>	<b>Basic Economic problem – Choice and the allocation of resources</b>	<b>24</b>	
2.1	The problem of scarcity and choice	2	2
2.1.1	Allocation growth and fuller utilization of resources	4	2
2.2	Opportunity cost	1	2
2.3	Production possibilities and technological choice	4	2
2.4	Basic features of Economic System		2
2.4.1	Capitalism	4	2
2.4.2	Socialism	4	2
2.4.3	Mixed economy	4	2
<b>3.0</b>	<b>Prices and markets</b>	<b>24</b>	
3.1	Market	1	2

3.1.1	Types of Market	3	2
3.2	Demand	1	2
3.2.1	Demand curve	2	2
3.2.2	Law of demand	2	2
3.2.3	shift in demand	2	2
3.3	Elasticity of demand	2	2
3.3.1	Degrees of elasticity of demand	2	2
3.3.2	Measurement and practical uses of elasticity of demand.	2	4
3.4	Supply	2	2
3.4.1	law of supply	2	2
3.5	Market Equilibrium	3	2
<b>4.0</b>	<b>Consumer Behaviour</b>	<b>20</b>	
4.1	Cardinal utility	2	2
4.2	law of diminishing marginal utility	6	2
4.3	Derivation of the Marshallian demand Curve	6	2
4.4	Consumer's surplus	3	2
4.4.1	Marshallian measurement	3	2
<b>5.0</b>	<b>Production and product pricing</b>	<b>28</b>	
5.1	Production function	3	2
5.1.1	Short- Run and Long Run	3	2
5.2	Law of variable proportions	3	4
5.3	Returns to scale	3	4
5.4	Concepts of cost and Revenue	3	2
5.5	Market forms	3	2
5.5.1	perfect competition- salient features	3	2
5.5.2	Monopoly- salient features	3	2
5.5.3	Monopolistic competition- salient features –	2	2
5.5.4	Oligopoly- Salient Features	2	2

### Text Books for Reference

1. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010. 13. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGrawHill (India), 2009.
2. A. Koutsoyiannis. (1979). Modern Microeconomics. Palgrave McMillan
3. Dominick Salvatore. Micro Economics Theory and Application. 4<sup>th</sup> Ed. New Delhi: Oxford University Press
4. Robert S. Pindyck, et al. (recent edition). Micro Economics. Delhi: Pearson Education.
5. G.S. Maddala, Ellen Miller. (2004). Micro Economics - Theory and Applications. Delhi: Tata McGraw Hill.
6. Case, Karl E. & Ray C. Fair. (2007). Principles of Economics. (8<sup>th</sup> edition). Delhi: Pearson

Education.

7. Varian. H.(2000). Intermediate microeconomics: A modern approach.

Affiliated east West Press Pvt. Ltd.

8. Watson and Getz. (1996). Price Theory and its uses. New Delhi: AITBS Publisher.
9. Robert Y. Awh. Microeconomics- Theory and Applications. John Wiley and Sons Inc. (RYA).
10. Sen. A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
11. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
12. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

Course	Details
Code	EC1812202
Title	<b>Basic Economic Studies</b>
Degree	B.A.
Branch(s)	Economics
Semester	2
Type	complementary
Total Hours	108
Hours per week	06

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Understand the concepts of National income accounting practices	U	3 of HY
2	Understand the functioning of governmental machinery and process in Economics	U	3 of HY
3	Analyse the effectiveness of monetary policy in combating inflation and deflation	U	3 of HY
4	Understand about the issues pertaining to Indian Economy	U	3 of HY
5	Understand about the basic facets of Kerala economy	U	3 of HY
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; CCreate.</b>			

Module	Course Description	Hrs	CO.No.
<b>1.0</b>	<b>National Income accounting</b>	<b>20</b>	
1.1	Concept of Circular Flow	2	1
1.1.1	National income identities with government and international trade	2	2

1.2	Concepts of National income	4	2
1.2.1	Methods of National income accounting	6	3
1.2.2	Difficulties in estimating national income	6	2
<b>2.0</b>	<b>Public Economics</b>	<b>20</b>	
2.1	State v/s market	2	1
2.2	sources of public revenue	3	2
2.3	GST	2	2
2.4	public expenditure	2	2

2.5	Trends in India-budget	3	3
2.5.1	Types of Budget	1	2
2.5.2	Fiscal deficit	1	2
2.5.3	revenue deficit	1	2
2.6	Public debt	2	2
2.7	Fiscal policy	1	2
2.7.1	Objectives of Fiscal Policy	1	2
2.7.3	Fiscal policy as tool for combating inflation and deflation	1	4
<b>3.0</b>	<b>Financial system</b>	<b>20</b>	
3.1	Money	3	1
3.1.1	Meaning, and functions		2
3.2	Meaning, Types, and Functions of commercial banks	3	2
3.3	Functions of a central bank	3	2
3.3.1	Functions with reference to RBI	2	2
3.4	Inflation and deflation	2	2
3.4.1	Definition, types, causes and effects of Inflation and deflation	3	4
3.4.2	Measures to control inflation	3	4
3.5	Monetary policy as a tool for combating inflation	3	4

	and deflation		
<b>4.0</b>	<b>Introduction to Indian economy</b>	<b>28</b>	
4.1	Developed and less developed Economy	1	1
4.1.1	Meaning and Concept		1
4.2	Characteristics of Indian Economy	2	1
4.3	Comparison of Indian Economy with Developed countries. a) Population	5	2
	a) Population		
	b) per capita Income d.		
	c) Human Development Index		
	d) Agriculture		
	e) Industry		
	f) Service Sector		
4.4	Planning in India.		2
4.4.1	Five year plans	3	2
4.4.2	Achievements and shortfalls		2
4.5	Trends in National Income & Per Capita Income in india Since 1991	2	4
4.6	Place of Agriculture in the Indian Economy	1	2
4.7	Green Revolution:	2	2
4.7.1	Achievements, & failures		2
4.8	Importance of Industrialization	1	2
4.9	Industrial policy since 1991	2	2
4.10	Special Economic Zone	2	2
4.10.1	Concept and features		2
4.11	New Economic Reforms	4	2
4.11.1	i) Liberalization		2
4.11.2	ii) Privatization		2
4.11.3	iii) Globalization		2

4.12	NITI Ayog .	1	2
4.13	Recent reforms in banking sector in India- Narasimham Committee I & II.	3	2
4.14	Private Public participation in india	1	5
<b>5.0</b>	<b>Basic Economic Issues of Kerala</b>	<b>20</b>	
5.1	Features of Kerala economy.	2	2
5.1.1	Structural changes.	2	2
5.2	Kerala model of development	5	4
5.3	self relianceand self help groups (SHG'S)	6	2
5.4	Impact of migration in Kerala economy	5	4

#### Text Books for Reference

1. A. Koutsoyiannis. (1979). Modern Microeconomics. Palgrave McMillan
2. Dominick Salvatore. Micro Economics Theory and Application. 4<sup>th</sup> Ed. New Delhi: Oxford University Press
3. Robert S. Pindyck, et al. (recent edition). Micro Economics. Delhi: Pearson Education.
4. G.S. Maddala, Ellen Miller. (2004). Micro Economics - Theory and Applications. Delhi: Tata McGraw Hill.
5. Case, Karl E. & Ray C. Fair. (2007). Principles of Economics. (8<sup>th</sup> edition). Delhi: Pearson Education.
6. Varian. H.(2000). Intermediate microeconomics: A modern approach. Affiliated east West Press Pvt. Ltd.
7. Watson and Getz. (1996). Price Theory and its uses. New Delhi: AITBS Publisher.
8. Robert Y. Awh. Microeconomics- Theory and Applications. John Wiley and Sons Inc. (RYA).
9. Sen. A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
10. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
11. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

**Text Books for Enrichment**

1. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010. 13. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGrawHill (India), 2009.
2. Varian, H.R. (2000), Microeconomics Analysis: W.W. Norton, New York.
3. Henderson, J and R.E Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

## EXTRA CREDIT COURSE

Course	Details				
Code	ECX181201				
Title	<b>Economics of Infrastructure</b>				
Degree	<b>B A</b>				
Branch(s)	<b>Economics</b>				
Specialisation					
Semester	<b>2</b>				
Type	<b>Extra Credit</b>				
Credits	<b>02</b>	Hrs/Week		Total Hrs	<b>36</b>

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level
1	Familiarize the students with role of infrastructure in economic development and growth	U
2	Understand the key issues in financing, governance and inter-regional disparities.	An
3	Identify and analyse main categories of infrastructure, including physical and social with special reference to the Indian situation	Ap, An, E
PSO-Program Specific outcome; CO-Course Outcome; <b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; CCreate.</b>		

<b>Module</b>	<b>Course Description</b>	<b>Hrs</b>	<b>CO. No.</b>
<b>1.0</b>	<b>Infrastructure and Economic Development</b>	<b>18</b>	
1.1	Infrastructure –Types and Importance	3	1
	Social & Economic Infrastructure	2	2
1.2	Special characteristics of public utilities	2	2
1.3	Infrastructure as a public good and merit good	2	2
1.4	Major aspects of Growth and Challenge for Infrastructure Development	3	3
1.5	Infrastructural finance and NABARD	3	2
1.6	Status and shortcomings of Infrastructure in India	3	3
<b>2.0</b>	<b>Infrastructural Development in Kerala</b>	<b>18</b>	
2.1	Status of Infrastructure in Kerala	3	2
2.2	Challenges and weakness of Infrastructure in Kerala	3	2
2.3	Development schemes of NABARD in Kerala	3	2
2.4	Trends in the distribution of finance by NABARD	3	2
2.5	Credit distribution and challenges in Kerala	3	2
2.6	Future prospects of Infrastructure in Kerala	3	2

## References

1. ICSSR(1976) Economics of Infrastructure Vol. VI, New Delhi
2. Crew, M. A. and P. R. Kleindorfer (1979), Public Utility Economics, Macmillan, London
3. Das, K. (2010), 'Lopsided Infrastructure', in Alternative Survey Group (Ed.), Alternative Economic Survey, India: Two Decades of Neoliberalism, Daanish Books, Delhi, pp. 195- 209.
4. Government of India (1997), the India Infrastructure Report, Vols. I, II and III, NCAER and Government of India, New Delhi. (Chairman: Rakesh Mohan).
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## ADD ON COURSE- I

Course	Details				
Code	ECX181401				
Title	<b>MATHEMATICS FOR ECONOMIC ANALYSIS</b>				
Degree	<b>B A</b>				
Branch(s)	<b>Economics</b>				
Specialisation					
Semester	<b>4</b>				
Type	<b>ADD ON COURSE</b>				
Credits	<b>02</b>	Hrs/Week		Total Hrs	<b>36</b>

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level
1	Understand and Apply the application of matrix algebra in economic analysis.	U& Ap
2	Apply the rules of differentiation to mathematically solve economic problems that they come across in the study.	AP
3	Apply the rules of Integration to mathematically solve economic problems that they come across in the study.	AP
4	Understand the application of Input Output Analysis in economic policymaking	U& Ap
5	Understand the application of Linear Programming in economic analysis	U& Ap

PSO-Program Specific outcome; CO-Course Outcome;  
**Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; CCreate.**

<b>Module</b>	<b>Course Description</b>	<b>Hrs</b>	<b>CO. No.</b>
<b>1.0</b>	<b>Quantitative Methods</b>	<b>10</b>	1
1.1	Matrix Algebra- Definition and Types		1
1.2	Operation of Matrices		1
1.3	Determinants- properties		2
1.4	Cramer's Rule		2
1.5	Rank of a Matrix		2
1.6	Variables, constants and parameters		1
1.7	Simple functional relationship and their graphs		2
1.8	Solutions to simultaneous and quadratic equations		2,3
<b>2.0</b>	<b>Input- output analysis</b>	<b>13</b>	4
2.1	Input-output analysis- static and dynamic model		4
2.2	Technical viability of Input Output Analysis		4
2.5	Application and Limitation of the model.		4
<b>3.0</b>	<b>Linear Programming</b>	<b>13</b>	5
3.1	LPP- Formulation of LPP		5
3.2	Solution of LPP- Graphical method and Simplex method		5
3.3	Duality of Linear Programming model		5
3.4	Application and limitation of linear programming		5

**Text Books for Reference**

10. Chiang Alpha C , Fudamental Methods of Mathematical Economics,Economics series, McGraw Hill
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12. Knut Sydsaeter, Peter Hammond and Arne Strom(2012 ): Essential Mathematics for Economic Analysis 4<sup>th</sup> Ed, Pearson India,.( Chapters-4-9)
13. MikWisneiwski(1998): Introductory Mathematical Methods in Economics, 2<sup>nd</sup> Ed McGraw- Hill,. (Chapters -7-10 and 13).
14. Michael Hoy,et.al(2009): Mathematics for Economics,2<sup>nd</sup>Ed,PHI.(Chapters-Part IV-11-12 and Part V-16).
15. Geoff Renshaw(2009): Maths for economics, 2<sup>nd</sup> Ed,OUP.(Ch-6-9, 14-16 and 18).
16. K.Holden and A.W.Pearson(2010): Introductory Mathematics for Economics and Business,2<sup>nd</sup> Ed. Macmillan.( Ch-5-7).
17. Ian Jacques(2015): Mathematics for Economics and Business,5<sup>th</sup>Ed,PH. ( Ch-4-6).
18. Akihito Asano(2013): An Introduction to Mathematics for Economics, CUP, (Ch-4- 7)