

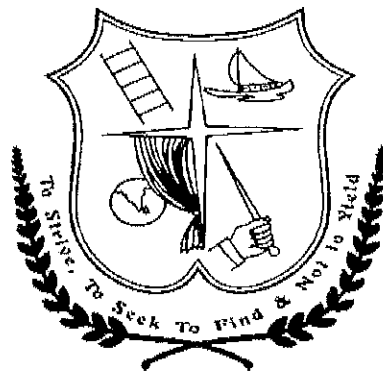
**ETHIRAJ COLLEGE FOR WOMEN**

**(AUTONOMOUS)**

**Chennai - 600 008**

**POST GRADUATE & RESEARCH**

**DEPARTMENT OF ECONOMICS**



**M. A. ECONOMICS**

**Syllabus**

**Choice Based Credit System**

**Outcome Based System**

**(Offered from the Academic Year 2018-2019)**

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## **DEPARTMENT OF ECONOMICS**

### **REVISED SYLLABUS OF JUNE 2018**

Department of Economics is revising syllabi with effect from the academic year 2018-2019 with CBCS for M.A. Economics & M.A Business Economics as specified by the Government of Tamil Nadu that will seek to build the capacity of the students and provide inputs for their social service and social analysis capabilities.

Every academic year is divided into two semester sessions. Each semester will have a minimum of 90 working days and each day will have 5 working hours. Teaching is organized into a modular pattern of credit courses. Credit is normally related to the number of hours a teacher teaches a particular subject. It is also related to the number of hours a student spends learning a subject or carrying out an activity.

#### **PREAMBLE**

The Department of Economics submits changes and additions suggested in the PG curricula that are given in the ensuing pages.

- Reorganization of Courses in the PG programmes as specified by TANSICHE
- Modification of course content in courses based on employability of the students and the needs of the industries.
- Changes in the course title based on revised contents of curricula and course titles.
- Introduction of new innovative courses.

#### **REGULATIONS**

##### **ELIGIBILITY FOR ADMISSION:**

Candidates for admission to the first year of the Degree of **M.A.Economics&M.A Business Economics** course shall be required to have passed B.A.Economics, B.Sc Mathematics, B.Sc Statistics /B.Com/B.B.A./B.B.M/B.Com (C.S) or any under graduate degree in social sciences conducted by the University of Madras or an Examination accepted as equivalent thereto by the Syndicate of the University of Madras.

**ELIGIBILITY FOR THE AWARD OF DEGREE:**

A candidate shall be eligible for the award of the Degree only if she has undergone the prescribed course of study for a period of not less than two academic years and passed the examinations in all the four semesters prescribed.

**COURSE OF STUDY:**

The main subject of study for Masters Degree shall consist of the following:

CORE COURSES

ELECTIVES SOFT SKILLS INTERNSHIP

**PASSING MINIMUM:**

A candidate shall be declared to have passed in each paper/practical of the main subject of study wherever prescribed, if she secured NOT LESS THAN 50% of the marks prescribed for the examination.

**CLASSIFICATION OF SUCCESSFUL CANDIDATES:**

Successful candidates passing the examination and securing the marks (i) 60 percent and above and (ii) 50 percent above but below 60 percent in the aggregate shall be declared to have passed the examination in the FIRST and SECOND classes respectively.

Candidates who pass all the examinations prescribed for the course in the FIRST APPEARANCE ITSELF ALONE are eligible for ranking.

## **Programme Educational Objectives**

On obtaining a postgraduate degree the students will be able to:

- PEO1:** Display higher order thinking in the knowledge domain and demonstrate professional skills
- PEO2:** Contribute to the advancement and application of relevant knowledge by self-directed learning
- PEO3:** Extend and integrate knowledge and skills to design and develop novel products and explore innovative solutions to national and international goals of development.
- PEO4:** Exercise management skills and develop social interactions in a responsive, ethical and constructive way to meet global standards of excellence in all spheres of activity.
- PEO5:** Strive for social and economic equity based on the need for gender parity and ecological sustainability

# **Programme Outcomes**

## **Arts Stream**

### **Postgraduate Course**

- PO1: Apply, analyze and review the knowledge gained through the study of humanities to address Political, Socio-Economic and gender issues and contribute to policy/law making.**
- PO2: Critically engage with history, human rights, linguistic, culture, economy, inclusivity and sustainability**
- PO3: Aid in the application of advanced mathematical, statistical and econometric tools in solving socio-economic issues.**
- PO4: Inculcate skills to evaluate, innovate and integrate the contemporary issues and motivate further professional learning and research**
- PO5: Enhance ethical values, upgrade communicative and employability skills.**
- PO6: Gain quality education, global in perspective to contribute towards holistic development and serve the community at large.**

## **Program Specific Outcomes - M.A. Economics**

- PSO1:** To develop an understanding of advanced theoretical aspects in Economics and its applications in problem solving/decision making
- PSO2:** Critically review the various regional, national and global economic issues
- PSO3:** Analyse the implications of economic variables using data and models for solving development issues.
- PSO4:** To enhance their professional, employability and career prospects
- PSO5:** To acquire knowledge on core aspects in financial, health and environmental economics and formulate policies for economic and sustainable development
- PSO6:** To focus on socio-economic issues in the preparation of individual projects with Mathematics, Statistics and Econometric tools using software

### PROGRAMME PROFILE - M.A. ECONOMICS

SEM	COURSE CODE	TITLE OF THE PAPER	CREDITS	HOURS	TOTAL HOURS	CA	SA	TOTAL
I	3P18/1C/AMT// 8P18/1C/AMT	Advanced Micro Economic Theory	4	6	90	40	60	100
	3P18/1C/PUE	Public Economics	4	6	90	40	60	100
	3P18/1C/MFE// 8P18/1C/MFE	Mathematics for Economists	4	6	90	40	60	100
	3P18/1C/SFE// 8P18/1C/SFE	Statistical Methods for Economists	4	6	90	40	60	100
	3P18/1E1/ FNE// 8P18/1E1/ FNE	Financial Economics	3	4	60	40	60	100
	Soft Skill	Personality Enrichment for Women	2	2	30		50	50
II	3P18/2C/MEA// 8P18/2C/MEA	Macro Economic Theory and Analysis	4	5	75	40	60	100
	3P18/2C/HES	Health Economics	4	5	75	40	60	100
	3P18/2C/ECM// 8P18/2C/ECM	Econometric Methods	4	5	75	40	60	100
	3P18/2C/SCA// 8P18/2C/SCA	Statistics with Computer Applications	4	5	75	40	60	100
	3P18/2E2/MGE// 8P18/2E2/MGE	Managerial Economics	3	4	60	40	60	100
	3P18/2E/ HCM	Health Care Management	3	4	60	40	60	100
	Soft Skill	Interpersonal Communication	2	2	30		50	50
III	3P18/3C/IEY// 8P18/3C/IEY	Indian Economy	4	6	90	40	60	100
	3P18/3C/MOE// 8P18/3C/MOE	Monetary Economics	4	5	75	40	60	100
	3P18/3C/RMC// 8P18/3C/RMC	Research Methodology and Computer Applications in Economics	4	5	75	40	60	100
	3P18/3E3/ECS	Economics of Social Issues	3	4	60	40	60	100
	3P18/3EA/ EIS	Economics of Infrastructure	3	4	60	40	60	100
	3P18/3E/HAD	Hospital Administration	3	4	60	40	60	100
	3P18/3S/YML// 8P18/3S/YML	Yoga and Meditation for Better Living	2	2	30		50	50
IV	3P18/4C/EGD// 8P18/4C/EGD	Economics of Growth and Development	4	6	90	40	60	100
	3P18/4C/INE// 8P18/4C/INE	International Economics	4	6	90	40	60	100
	3P18/4C/ENE// 8P18/4C/ENE	Environmental Economics	4	6	90	40	60	100
	3P18/4C/PRJ	Project	4	6	90	40	60	100
	3P18/4E5/DEY	Demography	3	4	60	40	60	100
	3P18/4S/EMS// 8P18/4S/EMS	Employability Skills	2	2	30		50	50
		<b>Internship</b>	2	6	90			
		<b>Total</b>	<b>91</b>					



### **Extra Credits (Optional for Advanced Learners)**

1. Self Study Paper -
2. MOOC Courses (One Course per year)

<b>Duration of the Course</b>	<b>No.of Credits</b>
4 weeks	1
8 Weeks	2
12 Weeks	3

## EVALUATION PATTERN FOR CONTINUOUS ASSESSMENT-PG

INTERNAL VALUATION BY COURSE TEACHER/S

### CORE/ELECTIVE/PROJECT-THEORY PAPERS

COMPONENT	TIME	MAX.MARKS	CA MARK
1.TEST I	2 HRS	50 MARKS (TO BE CONVERTED)	10
2.TEST II	2 HRS	50 MARKS (TO BE CONVERTED)	10
3.ASSIGNMENT/SEMINAR/FIELD VISIT			10
4.PARTICIPATORY LEARNING/MOCK VIVA FOR PROJECT			10
TOTAL			40

### SOFT SKILL PAPERS

COMPONENT	TIME	MAX.MARKS
1. NO INTERNALS		

### CA QUESTION PAPER PATTERN-PG

Knowledge Level	Section	Word Limit	Marks	Total
K 4	A-2/4X5 marks	500	10	50
K4, K 5	B-2/3x20 marks	1200	40	

### RUBRICS FOR CONTINUOUS ASSESSMENT

Assignment	Content/originality/Presentation/Schematic Representation and Diagram/Bibliography
Seminar	Organisation/Subject Knowledge/Visual Aids/Confidence level/presentation-Communication and Language
Field Visit	Participation/Preparation/Attitude/Leadership
Participation	Answering Questions/Clearing Doubts/Participating in Group Discussions/Regular Attendance
Case Study	Finding the Problem/Analysis/Solution/Justification
Problem Solving	Understanding Concepts/Formula and Variable Identification/Logical Sequence/Answer
Group Discussion	Preparation/Situation Analysis/Relationship Management/Information Exchange/Delivery Skills
Flipped/Blended Learning	Preparation/Information Exchange/ Group interaction/Clearing doubts

- FIRST FOUR RUBRICS SHOULD BE INCLUDED.
- OTHERS ARE OPTIONAL BASED ON TEACHING-LEARNING METHODOLOGY ADOPTED FOR THE PROGRAMME OF STUDY

## **END SEMESTER EVALUATION PATTERN-PG**

### **THEORY PAPERS**

**SEMESTER I/II/III/IV**

**DOUBLE VALUATION BY COURSE TEACHER AND EXTERNAL EXAMINER**

**MAXIMUM MARKS: 100 TO BE CONVERTED TO 60**

**PASSING MARKS: 50**

### **SOFT SKILLS PAPERS**

**SEMESTER I/II/III/IV**

**SINGLE VALUATION BY COURSE TEACHER**

**MAXIMUM MARKS: 50**

**PASSING MARKS:25**

### **PROJECT PAPER**

**SEMESTER: IV**

**DOUBLE VALUATION BY RESEARCH SUPERVISOR AND EXTERNAL EXAMINER**

**DISSERTATION:40**

**VIVA: 20**

**MAXIMUM MARKS: 60**

**PASSING MARKS:30**

### **INTERNSHIP**

**YEAR :I**

**SEMESTER II (Summer Vacation)**

**DURATION : 30 DAYS**

## COURSEPROFILE - M.A ECONOMICS

### SEMESTER I

Course Code	Title of the Paper	Credits	Hours	Total Hours	L-T-P	CA	SA	Total
3P18/1C/AMT// 8P18/1C/AMT	Advanced Micro Economic Theory	4	6	90	3/3/0	40	60	100
3P18/1C/PUE	Public Economics	4	6	90	3/3/0	40	60	100
3P18/1C/MFE// 8P18/1C/MFE	Mathematics for Economists	4	6	90	3/3/0	40	60	100
3P18/1C/SFE// 8P18/1C/SFE	Statistical Methods for Economists	4	6	90	3/3/0	40	60	100
3P18/1E1/ FNE// 8P18/1E1/ FNE	Financial Economics	3	4	60	2/2/0	40	60	100
	Personality Enrichment for Women	2	2	30				
Total		21	30					

### SEMESTER II

Course Code	Title of the Paper	Credits	Hours	Total Hours	L-T-P	CA	SA	Total
3P18/2C/MEA// 8P18/2C/MEA	Macro Economic Theory and Analysis	4	5	75	3/2/0	40	60	100
3P18/2C/HES	Health Economics	4	5	75	3/2/0	40	60	100
3P18/2C/ECM// 8P18/2C/ECM	Econometric Methods	4	5	75	3/2/0	40	60	100
3P18/2C/SCA// 8P18/2C/SCA	Statistics with Computer Applications	4	5	75	2/2/1	40	60	100
3P18/2E2/MGE// 8P18/2E2/MGE	Managerial Economics	3	4	60	4/0/0	40	60	100
3P18/2E/ HCM	Health Care Management	3	4	60	3/1/0	40	60	100
	Interpersonal Communication	2	2	30				
Total		24	30					

### SEMESTER III

Course Code	Title of the Paper	Credits	Hours	Total Hours	L-T-P	CA	SA	Total
3P18/3C/IEY// 8P18/3C/IEY	Indian Economy	4	6	90	3/3/0	40	60	100
3P18/3C/MOE// 8P18/3C/MOE	Monetary Economics	4	5	75	3/2/0	40	60	100
3P18/3C/RMC// 8P18/3C/RMC	Research Methodology and Computer Applications in Economics	4	5	75	2/2/1	40	60	100
3P18/3E3/ECS	Economics of Social Issues	3	4	60	3/1/0	40	60	100
3P18/3E4/ EIS	Economics of Infrastructure	3	4	60	3/1/0	40	60	100
3P18/3E/HAD	Hospital Administration	3	4	60	3/1/0	40	60	100
3P18/3S/YML// 8P18/3S/YML	Yoga and Meditation for better living	2	2	30	1/0/1			
Total		23	30					

### SEMESTER IV

Course Code	Title of the Paper	Credits	Hours	Total Hours	L-T-P	CA	SA	Total
3P18/4C/EGD// 8P18/4C/EGD	Economics of Growth and Development	4	6	90	3/3/0	40	60	100
3P18/4C/INE// 8P18/4C/INE	International Economics	4	6	90	3/3/0	40	60	100
3P18/4C/ENE// 8P18/4C/ENE	Environmental Economics	4	6	90	3/3/0	40	60	100
3P18/4C/PRJ	Project	4	6	90		40	60	100
3P18/4E5/DEY	Demography	3	4	60	3/1/0	40	60	100
3P18/4S/EMS// 8P18/4S/EMS	Employability Skills	2	2	30	2/0/0			
Total		21	30					

**TEACHING METHODOLOGY ADOPTED BY THE COURSE TEACHERS:**

- Lecture (Chalk and Talk-OHP-LCD)
- Flipped Learning/Blended Classroom-E Content, Videos (you tube)
- Problem Solving-Group Discussion-Role Modelling
- Quiz-Seminar-
- Peer Learning-
- Case Studies Analysis
- Field Visits/Industrial visit
- Power Point Presentations
- Self-Study Papers
- Guest Lectures
- Listening Speaking Reading Writing (LSRW) technique
- E-learning through ecweconomics blog

## SEMESTER I

### ADVANCED MICRO ECONOMIC THEORY

Total Hours: 90

Credits: 4

Course Code: 3P18/1C/AMT//8P18/1C/AMT

L-T-P: 3/3/0

#### COURSE OBJECTIVES:

1. To enable the students to understand the advanced theories of consumer behaviour
2. To identify the significance of welfare economics and its related issues.
3. To review the models related to firms's profit and goals.

**UNIT I:** Theory of Market Demand-A Pragmatic Approach to Demand Analysis – Constant Elasticity of Demand Model – Distributed Lag Models -Linear Expenditure System - Indirect Utility and Expenditure Function– Roy's Identity – Shepherd's Lemma –Slutsky'sEquation.

(20 Hrs)

**UNIT II:** Oligopoly - Non-Collusive Oligopoly – Cournot's Duopoly Model- Chamberlin's Oligopoly Model- Paul. M Sweezy's Model- Stackelberg's Model - Collusive Oligopoly – Cartels -Priceleadership.

(20Hrs)

**UNIT III:** Behavioural Models - Baumol'sSales Maximization Theory - Cyert and March Model - Marris Growth Model- Williamson Model- LimitPricing.

(15 Hrs)

**UNIT IV:** General Equilibrium –Walrasian System - 2 x 2 x 2 Model - Pareto Optimality Conditions – Tatonnement and Non-Tatonnement process – Social Welfare Function - Arrows Impossibility Theorem – Second Best Theory.

(20 Hrs)

**UNIT V:** Choice under Uncertainty — Neumann Morgenstern Index - Friedman-Savage Hypothesis- Markowitz Hypothesis- Hicks Logical Ordering.

(15Hrs)



### **RECOMMENDED TEXTBOOKS:**

1. K.N. Verma, Micro Economic Theory, Vishal Publishing Company, New Delhi, 2009
2. Koutsoyannis.A; Modern Micro Economics, ELBS, Macmillan Press, London 2013.

### **REFERENCE BOOKS:**

1. Baumol W J Economic Theory and Operations Analysis; Prentice Hall of India , New Delhi April 2018 (New Edition).
2. E.Roy Weintraub, General Equilibrium Theory, Macmillan London 1974.
3. George Joseph Stigler, Theory of Price, Prentice Hall of India, New Delhi , 1996
4. Hal R. Varian; Micro Economic Analysis, Affiliated East West Press, 2006.
5. Geoffery Alexander, Jehle, Phillip J. Rey "Advanced Micro Economic theory". Financial Times/Prentice Hall 2011

### **JOURNALS:**

1. Cambridge Journal of Economics
2. American Economic Journal

### **E-LEARNING RESOURCES**

1. [www.jstor.org](http://www.jstor.org)
2. [www.oreilly.com](http://www.oreilly.com)
3. [www.econpapers.repec.org](http://www.econpapers.repec.org)
4. [www.coursera.org/learn/economics](http://www.coursera.org/learn/economics)
5. [www.tutor2u.net](http://www.tutor2u.net)

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to

CO Number	CO STATEMENT
CO 1	Summarize the models related to consumer behaviour
CO 2	Design models related to firm's profit maximizing strategies
CO 3	Gain knowledge on long run behaviour of firms
CO 4	Explain general equilibrium model in relation to allocation of resources
CO 5	Explain theories related to choice and uncertainty.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	2	3	2	2	3
CO2	3	2	3	2	2	2
CO3	3	2	3	2	2	2
CO4	2	2	2	2	3	3
CO5	3	2	2	2	2	2
<b>AVERAGE</b>	2.8	2.0	2.0	2.0	2.2	2.4

KEY:STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – I

### PUBLIC ECONOMICS

Total Hours: 90

Credits: 4

Course Code: 3P18/1C/PUE

LTP : 3/ 3/ 0

#### COURSE OBJECTIVES:

1. To understand the theoretical analysis of Public Finance.
2. To study the policy framework of Public Economics.
3. To examine the role of Finance Commission.

#### COURSE OUTLINE:

**UNIT I:** Public Finance –Meaning and Scope - Importance - Role of Public Finance in Developing Countries - Functions of the State and Role of Public Sector in the Economy.

(15Hours)

**UNIT II:** The Theory of Public and Private Goods – Efficiency of Public Goods – Private preference for Public goods –Voluntary Exchange Theory –Samuelson Theory-Externalities –Negative Externalities – Positive Externalities and Inefficiency-Lindahl Model.

(15Hours)

**UNIT III:** Public Expenditure – Canons of Public Expenditure – Reasons for the Growth of Public Expenditure -Wagner's views on Public Expenditure –Peacock – Wiseman Hypothesis –Samuelson and Musgrave Approach –Colin Clark Hypothesis - Public Debt –Meaning – Causes – Classification - Sources - Burden – Kinds of Burden - Measurement of Debt Burden –Redemption of PublicDebt.

(20Hours)

**UNIT IV:** Federal Finance –Allocation of Revenue -Resources between Centre and States –Central Resources - State List –Finance Commission – Functions – Major Recommendations of 13<sup>th</sup> and 14<sup>th</sup> Finance Commission - Local Finance –Meaning and Importance –Sources of Revenue for Local Governments –Role of Panchayat Raj – Gram Sabha –Municipalities and MunicipalCorporations

(20 Hours)

**UNIT V:** Allocation of Resources – Opportunity Cost and Allocation - Efficient Allocation of Resources – Optimum Budget - Budget in India –Process – Procedure –Purpose and Principles of Budget –Types – Revenue and Capital Budget -Performance Budgeting –Principles of Budget - Green Budgeting- Gender Budgeting - Taxation – Sources of Revenue – Kinds –Direct Tax – Merits and Demerits –Income Tax – Proportional- Progressive –Regressive – Degressive Tax– DoubleTaxation–GST–GSTCouncil–GSTReviews.

(20 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Janak Raj Gupta-“ Public Economics in India- theory and practice”, Atlantic Publishers and Distributors Pvt Ltd; 2<sup>nd</sup>edition,2017
2. R.A.Musgrave and P.B.Musgrave “Public Finance in Theory and Practice”, McGraw Hill Publications,5<sup>th</sup>Edition ,1989.

### **BOOKS FOR REFERENCE:**

1. Atkinson, A.B and J.E.Siglitz“Lectures on Public Economics” , Tata McGraw Hill, New York(1980).
2. John Cullis and Philip Jones,“Public Finance and Public Choice”, Oxford University Press Ist Edition,1998.
3. B.P.Tyagi Revised by Dr.H.P.Singh, “Public Finance”, Jai PrakashNath& Co(2005)
4. Harvey R.A.Musgrave and P.B.MusgraveRosen, “Public Finance”, McGraw Hill Publications, 7<sup>th</sup>Edition,2005.
5. Lekhi.R.K, Joginder Singh, “Public Finance”, Kalyani Publishers; 11 Edition, 2016

### **JOURNALS:**

1. Journal of Economics and Public Finance
2. The Journal of Economic Perspectives- A Journal of the American Economic Association.

### **E-LEARNING RESOURCES:**

1. <https://academicearth.org/economics>
2. <https://rescuoc.edu/>
3. <https://edurev.in>
4. <https://sswm.info.budget-allocation>
5. <https://www.insightsonindia.com>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Describe the importance of Public Finance
CO 2	Classify externalities and distortions in equilibrium
CO 3	Explore the role of Public Expenditure in Economic Development
CO 4	Examine the importance of Federal Finance and the role of Finance Commission
CO 5	Identify the methods adopted by economy in relation to Resource Allocation

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	2	3	2	3	3	3
CO2	2	3	3	3	3	3
CO3	3	3	3	3	3	3
CO4	3	3	1	3	3	3
CO5	3	3	3	3	3	3
<b>AVERAGE</b>	2.6	3	2.4	3	3	3

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – I

### MATHEMATICS FOR ECONOMISTS

Total Hours:90

Course Code:3P18/1C/MFE//8P18/1C/MFE

Credits:4

LTP : 3/3/0

#### COURSE OBJECTIVES:

1. To enable students to understand the application of Mathematical Tools to Economic Theories.
2. To formulate Mathematical Models.
3. To equip the students to apply Differential and Difference Equations in Economics.

#### COURSE OUTLINE:

**UNIT I:** Vector and Matrix Algebra– Basic Operations – Trace - Rank and Inverse of a Matrix – Orthogonal Matrix – Partitioned Matrix – Elementary Transformation of a Matrix – Vector and Matrix Differentiation – Quadratic Form – Definite Matrices - Definition - Types and Properties – Positive Definite – Negative Definite.  
(20 Hours)

**UNIT II:** Linear Equations - Consistency of a System of Linear Equations – Solution of a System of Linear Equations (homogenous and non-homogenous) – Linear Transformation – Eigen Values and Eigen Vectors.  
(15 Hours)

**UNIT III:** Optimization Methods – Two and Three Variables – Unconstrained Optimization – Jacobian, Hessian – Constrained Optimization – Lagrangian.  
(15 Hours)

**UNIT IV:** Differential Equations types (elementary ideas) – Linear Differential Equations with Constant Coefficients (First, Second and Higher Order) – Solution of Differential Equations (Homogenous and Non-Homogenous) – Applications – Samuelson's Accelerator and Multiplier Model.  
(20 Hours)

**UNIT V:** Difference Equations- Finite Differences: Operators 'E' and ' $\Delta$ ' – Linear Difference: Equations with Constant Coefficients (first, second and higher order) – Solution of Difference Equations (Homogenous and Non- Homogenous) – Applications – Samuelson's Accelerator and Multiplier Model.  
(20 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Carl. P. Simon – Lawrence Blume “Mathematics for Economist” Norton,1994.
2. Edward T. Dowling, “Mathematical Methods for Business and Economics”, Schaums’s OutlineSeries(2002)

### **REFERENCE BOOKS:**

1. Chiang, A. C., Fundamental Methods of Mathematical Economics, McGraw-Hill, 1984
2. G. Hadley, Linear Algebra Addison – Wesley Publishing Company1977.
3. K.Sydsaeter and P Hammond, Mathematics for Economic Analysis, Pearson Educational Asia, Delhi2002.
4. Mabett. Alan J Workout for Mathematics for Economist Mac Millian1986.
5. R.G.D. Allen, Mathematical Analysis for Economists Macmillan and Co. Ltd.,2008
6. Renshaw Geoff, Maths for Economics Edition Oxford University Press, 2005.

### **JOURNALS:**

1. Journal of Mathematical Economics
2. Journal of Mathematical Economics and Finance

### **E-LEARNING RESOURCES:**

1. <https://ocw.mit.edu>
2. <https://oyc.yale.edu>
3. <https://www.edx.org/course/subject/economics-finance>
4. <https://www.coursera.org/learn/mathematics-for-economists>
5. <https://www.pearsonmylabandmastering.com/northamerica/mymathlab>

**COURSE OUTCOMES:**

On Completion of the course the students will be able to:

CO Number	CO STATEMENT
CO 1	Interpret the transformation of a Matrix
CO 2	Solve system of equations
CO 3	Gain Knowledge to use optimization techniques
CO 4	Apply differential equations in Economics
CO 5	Apply difference equations in Economics

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

	PSO <sub>1</sub>	PSO <sub>2</sub>	PSO <sub>3</sub>	PSO <sub>4</sub>	PSO <sub>5</sub>	PSO <sub>6</sub>
CO <sub>1</sub>	2	1	3	1	1	2
CO <sub>2</sub>	2	1	3	2	1	3
CO <sub>3</sub>	3	1	3	2	1	3
CO <sub>4</sub>	3	1	3	2	2	3
CO <sub>5</sub>	3	1	3	2	2	3
Average	2.6	1	3	1.8	1.4	2.8

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory Section A must have 3 theory and 5 problems
K4,K5	B-3/5x20 marks	1200	60		Section B must have 2 theory and 3 problems



## SEMESTER – I

### STATISTICAL METHODS FOR ECONOMISTS

Total Hours: 90

Course Code: 3P18/1C/SFE//8P18/1C/SFE

Credits : 4

LTP: 3/ 3/ 0

#### COURSE OBJECTIVES:

1. To provide a strong foundation on statistical concepts
2. To develop skills in handling complex problems in Data analysis and Research
3. To equip the students to calculate vital Statistical indicators.

#### COURSE OUTLINE:

- UNIT I:** Interpolation and Extrapolation –Newton’s and Lagrange’s Methods.  
(15 Hours)
- UNIT II:** Probability - Addition and Multiplication Theorems - Conditional - Probability- Discrete and Continuous - Random Variables - Mathematical Expectations – Bayes Theorem- Theoretical Distributions - Binomial, Poisson and Normal.  
(20 Hours)
- UNIT III:** Simple, Partial and Multiple Correlation- Regression- Regression Lines- Multiple Regression.  
(20 Hours)
- UNIT IV:** Univariate and Multivariate Techniques – Factor Analysis.  
(15 Hours)
- UNIT V:** Vital Statistics – Sources – Errors in Census and Registration – Measurement of Population rate and Ratio of vital events – Measurement of Mortality - Crude Death Rate (CDR) - Specific Death Rate (SDR) - Infant Mortality Rate (IMR) and Standardized Death Rate (SDR) - Maternal Mortality Rate(MMR)- Morbidity Rate.  
(20 Hours)

### **RECOMMENDED TEXT BOOKS:**

1. S.P Gupta, "Statistical Methods", Sultan Chand & Sons 2017.
2. Anderson, Sweeney and Williams, "Statistics for Business and Economics", Cengage, 2012.

### **REFERENCE BOOKS:**

1. Anderson, David Ray, "Statistics for Business and Economics", South-Western Pub, 2001.
2. Dr.T.K.V. Iyengar, Dr.B.Krishna Gandhi S.Ranganatham, Dr.M.V.S.S.N.Prasad, Probability and Statistics, S.Chand & Co 2015.
3. R.S.N. Pillai and V.Bagavathi, Statistics, Sultan & Chand Sons, New Delhi 2010.
4. Sancheti .D.C and V.K. Kapoor, "Statistical Theory-Method and Application", Sultan chand & Sons 2010.
5. SC. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics 2014.
6. Dr.S.Sachdeva- Statistics -Lakshmi Narain Agarwal 2014

### **JOURNALS:**

1. Journal of Applied Statistics
2. Journal of Statistical Software
3. The STATA journal
4. Journal of Statistics Education

### **E-LEARNING RESOURCES**

1. [www.quora.com](http://www.quora.com)
2. <https://guides.library.uoit.ca>
3. <https://www.statista.com>.
4. <https://techjury.net>
5. <https://www.elearningworld.org>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to

CO NUMBER	CO STATEMENT
CO1	Estimate value of unknowns
CO2	Outline the fundamentals and basic rules of probability that help in decision making.
CO3	Calculate and interpret Correlation and regression coefficients
CO4	Apply Univariate and Multivariate techniques.
CO5	Acquire knowledge on vital statistics that would equip students to calculate CDR,SDR,IMR,MMR and other vital indicators

**MAPPING- COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME:**

CO/PSO	PSO 1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	2	3	3	2	3
CO2	3	2	3	3	2	3
CO3	3	1	3	3	2	3
CO4	2	1	3	3	1	3
CO5	3	3	3	3	2	3
AVERAGE	2.8	1.8	3	3	1.8	3

**KEY:** STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATELY CORRELATED -2  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory Section A must have 3 theory and 5 problems
K4,K5	B-3/5x20 marks	1200	60		Section B must have 2 theory and 3 problems

## SEMESTER-I

### FINANCIAL ECONOMICS

Total Hours: 60

Credits:3

Course Code:3P18/1E1/FNE//8P18/1E1/FNE

LTP:2 /2/ 0

#### COURSE OBJECTIVES:

1. To have an insight about trading in the financial markets.
2. To analyse the Capital market
3. To explain the various types of investments.

#### COURSE OUTLINE:

**UNIT I:** Capital Market-Money Market- Primary Market- Definition- Kinds of Issues – General Conditions - Governing issues of shares in Primary Market- (a brief view) – Intermediaries involved in Primary Market.  
(10 Hours)

**UNIT II:** Secondary Market - Definition - Securities dealt in Secondary Market –Listing of Securities –Meaning – Objectives - Classification of Listed Securities – Benefits of Listing to Companies and Investors - Stock Brokers – Types of Stock Brokers in StockExchanges.  
(15 Hours)

**UNIT III:** Stock Brokers - Underwriters- Advantages- Responsibilities – Depositories- Functions- Procedure - Benefits- Remedies- Credit Rating Agencies- Benefit Instruments- Investors- Company - Basic types.  
(15 Hours)

**UNIT IV:** OTCEI - Insider Trading - Online Trading System - Meaning – SEBI - Objectives - Administration and Activities of SEBI - SEBI and Primary Market – SEBI and Secondary Market / Vanilla Interest Rate Swaps – Swaptions– other types of Swaps – Currency - Equity and Commodity Swaps-RatingDerivatives  
(15 Hours)

**UNITV:** Merchant Banking- Recognition-Conditions - Role- Functions- MutualFunds- Classification-Benefits- Performance -Venture Capital - Importance – Types  
(10 Hours)

### **RECOMMENDED TEXT BOOKS :**

1. B.Santhanam- Financial services (Indian Financial system) Margham Publication 2016.
2. N.K.Gupthan & Monika “ Financial market-Institutions and Services” Ane Book PVT Ltd – Delhi (2002)

### **REFERENCE BOOKS:**

1. Benson Kunjukunju & S.Mohanam - Financial Markets and Financial Services in India, New Century Publications-Delhi (2004)
2. H.R.Modi Raja- Indian Financial system, Vikas Publication, 4<sup>th</sup> Edition, 2010.
3. Rajesh Kothari - Financial Services in India, Nahidhas Publisher, 2002.
4. K. Erickson- Financial Economics: A Simple Introduction, K.H.Erickson Publishers, 2014.
5. Stephen, H.Leroy- Principal of Economics, Cambridge University Press, 2014.

### **JOURNALS:**

- a. The Journal of Financial Economics
- b. International Journal of Finance and Economics.

### **E-LEARNING RESOURCES:**

1. <https://www.cpdwise.com>.
2. [www.fitchlearning.com](http://www.fitchlearning.com).
3. [www.bobsguide.com](http://www.bobsguide.com)
4. [www.udemy.com](http://www.udemy.com)
5. <http://learning.equitymaster.com>

## COURSE OUTCOMES

On completion of the course the students will be able to:

CO Number	CO STATEMENT
CO1	Assess the importance of Capital and Money market.
CO2	Have an insight about the secondary market in India.
CO3	Examine the role of intermediaries in the securities market.
CO4	Discuss the role of securities in secondary market.
CO5	Explain the various types of investment in secondary market.

## MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	3	3	3	3	3
CO2	2	3	3	3	3	3
CO3	2	2	3	3	3	3
CO4	3	3	3	3	3	3
CO5	3	3	3	3	3	3
AVERAGE	2.6	2.8	3	3	3	3

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATLY CORRELATED-2  
NO CORRELATION -0

## QUESTION PAPER PATTERN

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER II

### MACRO ECONOMIC THEORY AND ANALYSIS

TOTAL HOURS:75

COURSE CODE: 3P18/2C/MEA

CREDITS:4

L-T-P: 3/3/0

#### COURSE OBJECTIVES:

- a. To enable the students to understand advanced theories and models in Macro Economics
- b. To facilitate the students to gain knowledge on Macro Economic Policies, Tools and its relevance to wide range of real world issues.
- c. To relate the theories of Business Cycles to the working of Economies.

#### COURSE OUTLINE:

**UNIT I:** Classical Theory of Income and Employment Determination with Saving and without Saving – Keynesian theory of Income Determination – Aggregate Demand and Aggregate Supply.  
(15Hours)

**UNITII:** Consumption Function – Keynesian Psychological theory – InvestmentFunction– MEC–MEI - Multiplier- Accelerator- Super Multiplier- FiscalandMonetary Tools  
(15Hours)

**UNITIII** GeneralEquilibriumintheProductandMoneyMarket-HicksandHansen– Non-Walrasian – Disequilibrium Theory – Robert W.Clower – AxelLeijonhufvud.  
(15Hours)

**UNITIV:** Business Cycle Model- The Samuelson Model - The Hicksian Model- The Goodwin- Kaldor - Schumpeter and Cobweb Model.  
(15 Hours)

**UNITV:** Kalecki's Model- Cartters Model- Kaldor's Savings-InvestmentModel- Weintraub's Model.  
(15Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Ahuja, H.L “Macro Economics Theory and Policies Advanced Analysis, Ed. 10, Indiana Books and Journals, Chennai, 2005,
2. Shapiro, Edward, Macro Economic Analysis, Galgotia Publications Pvt Ltd, New Delhi 1988

### **REFERENCE BOOKS:**

1. Duesenberry J.S. Income, Savings and the Theory of Consumer Behaviours Harvard, 1940.
2. Brooman, F., Macro Economics, George Allen and Unwin Ltd, London. 1963,
3. Surrey, M.J.C. (Ed), Macro Economic Themes, OUP, Oxford, 1976
4. Ackley, Gardner, Macro Economic Analysis: Theory and Policy, Macmillan Publishing Co, New York. 1978,
5. Shapiro, Edward, Macro Economic Analysis, Galgotia Publications Pvt Ltd, New Delhi 1988,
6. Vaish, M.L, “Macro Economics”, Vikas Publishing House Pvt Ltd, Mumbai 1999.

### **JOURNALS:**

1. South Asian Journal of Macro Economics and Public Finance, Sage Publication, Centre for studies in Social Sciences, Calcutta, ISSN 22779787
2. Journals of Macro Economics, Elsevier Inc, ISSN: 0164-0704, 2019

### **E-LEARNING RESOURCES:**

1. [www.yourarticlelibrary.com](http://www.yourarticlelibrary.com)
2. [www.economicshelp.org](http://www.economicshelp.org)
3. [www.omicsonline.org](http://www.omicsonline.org)
4. [www.khanacademy.org](http://www.khanacademy.org)
5. [www.economicdiscussion.net](http://www.economicdiscussion.net)



**COURSE OUTCOMES:**

On Completion of the Course the students will be able to

CO Number	CO STATEMENT
CO 1	Compare and contrast the Classical and Keynesian perspectives with regard to Income and Employment determinants.
CO 2	Interpret theories of consumption and working of the multiplier.
CO 3	Gain deeper understanding on general disequilibrium theories with regard to failure of money market.
CO 4	Relate the theories of Business cycles to understand the working of economies.
CO 5	Analyse the differences between investment and Consumption goods.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	2	2	2	2	2	2
CO2	3	2	2	2	2	2
CO3	3	2	2	2	2	2
CO4	3	2	3	2	2	2
CO5	3	2	2	2	2	2
AVERAGE	2.8	2.0	2.2	2.0	2.0	2.0

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER II

### HEALTH ECONOMICS

Total Hours: 75

Course Code: 3P18/2C/HES

Credits: 4

LTP : 3/2/0

#### COURSE OBJECTIVES :

1. To have an insight of the Health Policy and alternative systems of medicines.
2. To Study the Cost - benefit analysis involved.
3. To evaluate the importance of alternate systems of medicine.

#### COURSE OUTLINE:

**UNIT I :** The National and International Health Scene - Health Output and Indicators and their Correlation with the level of economic development – Hospitals in Rural and Urban India-Measures taken by Government - A review of the Indian National Health Policy.

(10Hours)

**UNIT II:** Resource Allocation in the Health Sector - Resource allocation Problems in Private and Government Hospitals–The Problem of multiple services of a Hospital – Pricing of these services and the choice of the mix of services – The tradeoffs between quantity and quality– Production Function – Productive Efficiency and equity considerations applied to the hospital sector - Spatial Distribution of health care facilities and services – the demand for health services and the role of physician – the Pharmaceutical companies.

(15Hours)

**UNIT III:** Evaluation of benefits and cost of health services- private benefits and private cost of providing health services–the failure of the market to provide essential health services – the provision of health services by the Government – the application of benefit cost analysis to public health and family planning projects – the role of health in economic development- value of output lost due to number of sick days - Benefits and Costs (both private and social) of training to professional manpower such as physicians – dentist, pharmacists, nurses.

(20Hours)

**UNIT IV:** Financing of Health services - the need for a general health insurance – the need for special insurance for the poor - disabled and the aged- A comparative analysis of alternative payment system - prepayment scheme – saving linked direct insurance system etc - Financing health service through specific (health cess) and general (direct and indirect taxes) local government revenues – the role of financing Institutions in financing health services.

(15 Hours)

**UNIT V:** Growth of Allopathy - Homeopathy - Indian Traditional Medicine – Educational Institutions in India & Growth of Medical Tourism in India.

(15 Hours)

### **RECOMMENDED TEXT BOOKS:**

1. Xamer Martinez Giralt, "Principles of Health Economics", Routledge, 2010.
2. HimanshuSekhar Rout and Prasant Kumar Panda, Health Economics in India, New Century Publication, 2010.

### **REFERENCE BOOKS:**

1. Banerjee, D. (1975), social and Cultural Foundations of Health Service Systems of India, Inquiry, Supplement to Vol. XII, June 1975.
2. Edwin G Dolan and John C Goodman: Economics of Public Policy: 4<sup>th</sup> Edition: West Publishing Company, New York1995.
3. D.Amutha, "A Textbook of Health Economics",Edition 1,Mangalam Publishers and Distributers,2016.
4. David Wonderling, Reinhold Gruen, Nick Black, "Introduction to Health Economics",McGraw Hill Education,2005.
5. Reinhold Gruen, Anne Howrath, "Financial Management in Health Services", McGraw-Hill Education(UK),2005

### **JOURNALS:**

1. Journal of Health Economics Outcomes and Research.
2. Elsevier BV Journal of Health Economics

### **E-LEARNING RESOURCES**

1. [www.ibef.org](http://www.ibef.org)>Health
2. [www.medscape.com](http://www.medscape.com)
3. [www.healthknowledge.org](http://www.healthknowledge.org)
4. [www.encyclopedia.com](http://www.encyclopedia.com)>health
5. [www.researchgate.net](http://www.researchgate.net)

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO NUMBER	CO STATEMENT
CO 1	Compare National and International Health sector and the Indian National Health Policy.
CO 2	Identify Resource Allocation and Financing in Health Sector.
CO 3	Analyse cost and benefit of Health Services.
CO 4	Evaluate the importance of Alternative systems of medicine and growth of medical tourism.
CO 5	Assess the behaviour of stakeholders in the health sector

**MAPPING- COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	2	2	2	1	2	1
C02	2	2	2	0	3	1
C03	2	2	2	0	3	3
C04	1	1	2	1	3	2
C05	2	1	2	2	3	1
AVERAGE	1.8	1.6	2	0.8	2.8	1.6

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – II

### ECONOMETRIC METHODS

**TotalHours: 75**

**Course Code: 3P18/2C/ECM//8P18/2C/ECM**

**Credits:4 LTP: 3/ 2/ 0**

#### COURSE OBJECTIVES:

1. To provide an understanding on the knowledge of Econometrics and its use for Economists and social scientists.
2. To understand how economic theories may be used to create testable hypotheses using empirical data.
3. To provide in depth knowledge on the Econometric models.

#### COURSE OUTLINE:

**UNIT I:** Regression Analysis - Linear Regression Model – Two Variables and Multi Variables – BLUE property – General and Confidence Approach to Hypothesis Testing – Partial Effects and Elasticity – Goodness of fit - Extension of Linear Regression Models - Definition, Sources - Consequences and Detection of Multicollinearity – Heteroscedasticity - Autocorrelation and Remedial Measures.

(15 Hours)

**UNIT II:** Dummy Variables - Regression on Qualitative and Quantitative Variables - Dummy Variable Trap – Structural Stability of Regression Models – Chow Test – Deseasonalisation - Piecewise Linear Regression Model.

(15Hours)

**UNIT III:** Distributed Lag Models - Formation of Expectations - Naïve Expectation Versus Adaptive Expectations Models – Partial Adjustment Models - Distributed Lag Models - Koyck's Model – Almon Lag - Polynomial Distributed Lag Models - End Point Restriction– Rational Expectation Models.

(15Hours)

**UNIT IV:** Simultaneous Equation Methods – Approaches to Estimation – Recursive Models and Ordinary Least Squares – Estimation of Just - over and under Identified Equation - The Method of Indirect Least Squares (ILS) – Estimation of an over identified equation - The Method of Two – Stage Least Squares (2SLS).

(15 Hours)

**UNIT V:** Time Series Analysis - Time Series Econometrics: Forecasting – Approaches to Economic Forecasting – AR - MA and ARIMA Modeling of Time Series Data – Box-Jenkins (BJ) Methodology – ARCH and GARCHs.

(15 Hours)

### **RECOMMENDED BOOKS:**

1. Damodar N. Gujarati & Sangeetha - Basic Econometrics, The McGraw-Hill Companies 2007
2. A. Koutsoyiannis - Theory of Econometrics Palgrave Macmillan 2001
3. R. Dhanasekaran - Econometrics 2013 Vrindha Publications, 2012

### **REFERENCE BOOKS:**

1. Brooks, C., Introductory Econometrics for Finance, first edition, Cambridge University Press, 2003.
2. Gujarati, N. D., Basic Econometrics, Fourth Edition, McGraw Hill, 2003.
3. Johnston, J., Econometric Methods, Third Edition, McGraw Hill, 1984.
4. Ramanathan, R., Introductory Econometrics with applications, Fifth Edition, Thomson Asia Private Limited, 2002.
5. Wooldridge, J., Introductory Econometrics: A Modern Approach, South-Western, 2009.

### **JOURNALS:**

1. Journal of Econometrics
2. Journal of Applied Econometrics
3. Econometrica - Journal of the Econometric Society

### **E-LEARNING RESOURCES**

1. <https://learneconometricsfast.com>.
2. <https://inomics.com>.
3. <https://www.coursera.org>.
4. <https://economicsnetwork.ac.uk>.
5. <https://www.edx.org>

**COURSE OUTCOME:**

On Completion of the Course the students will be able to

CO NUMBER	CO STATEMENT
CO1	Use the least squares method in determining relationships among different variables
CO2	Examine the meaning and applicability of dummy variables
CO3	Estimate the linear probability models and the role of lags
CO4	Gain in-depth knowledge in Simultaneous equation models
CO5	Recall the basic methods of time series data and dynamic models

**MAPPING- COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME:**

CO/PSO	PSO 1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	2	3	3	2	3
CO2	3	2	3	3	2	3
CO3	3	2	3	3	2	3
CO4	3	2	3	3	2	3
CO5	3	2	3	3	2	3
	3	2	3	3	2	3

KEY: STRONGLY CORRELATED-3  
2WEAKLY CORRELATED -1

MODERATLY CORRELATED-  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

**SEMESTER – II**  
**STATISTICS WITH COMPUTER APPLICATIONS**

**TotalHours: 75**

**Course Code: 3P18/2C/SCA//8P18/2C/SCA**

**Credits: 4**

**LTP :2/2/1**

**COURSE OBJECTIVES:**

1. To make students familiar with various statistical tools and their Application.
2. To train the students in the application of Computer software in Statistical Data Analysis
3. To enable the students to deal with economic issues using statistical data.

**COURSE OUTLINE:**

- UNITI:** Sampling Theory- Types of Sampling -Sampling Distributions and Standard Error of-Means - Standard Deviation and Proportions - Testing of Hypothesis - Level of Significance - Type I and Type II Error - Large Sample test for Two Means - Two Standard Deviations and TwoProportions.  
(15 Hours)
- UNITII:** Estimator and Estimate – Point and Interval Estimates – Reliability of an Estimate – Sampling Variance and Mean Square Error – Properties of a good estimator.  
(15 Hours)
- UNITIII:** Small Sample Test – t-test- Paired t- test - Chi-square Test- Test of Goodness of Fit – Test of Homogeneity - Test of Independence of TwoAttributes.  
(15 Hours)
- UNITIV:** F test – Analysis of Variance- One Way and Two Way Classifications.  
(15 Hours)
- UNITV:** Introduction – Statistical Data Files- Statistical Workbook – Installation – Data Spread sheet Toolbar - Scroll Sheet Applications- Diagrams and Graphs - Elementary concepts in Statistics – Application in Computer – Correlation, Multiple Correlation - Regression – Multiple Regression – ANOVA (**Practical Examination only. No question for End Semester Examination**)  
(15 Hours)



### **RECOMMENDED TEXT BOOKS:**

1. S.P Gupta, "Statistical Methods", Sultan Chand & Sons 2017.
2. Anderson, Sweeney and Williams, "Statistics for Business and Economics", Cengage, 2012.

### **REFERENCE BOOKS:**

1. Anderson, David Ray, "Statistics for Business and Economics", South-Western Pub, 2001.
2. Dr.T.K.V. Iyengar, Dr.B.Krishna Gandhi S.Ranganatham, Dr.M.V.S.S.N.Prasad, Probability and Statistics, S.Chand & Co 2015.
3. R.S.N. Pillai and V.Bagavathi, Statistics, Sultan & Chand Sons, New Delhi 2010.
4. Sancheti .D.C and V.K. Kapoor, "Statistical Theory-Method and Application", Sultan Chand & Sons 2010.
5. SC. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics 2014.
6. Dr.S.Sachdeva- Statistics -Lakshmi Narain Agarwal 2014

### **JOURNALS:**

1. Journal of Applied Statistics
2. Journal of Statistical Software
3. The STATA journal
4. Journal of Statistics Education

### **E-LEARNING RESOURCES:**

1. <https://www.statista.com>.
2. <https://techjury.net>
3. [elearning.ec.unipi.gr](http://elearning.ec.unipi.gr)>elearning
4. <http://www.coursera.org/learn/economics>
5. <http://www.springboard.com>

**COURSE OUTCOME:**

On Completion of the Course the students will be able to

CO NUMBER	CO STATEMENT
CO1	Perform test of Hypothesis and estimate Mean and Proportions using confidence intervals
CO2	Construct Point and Interval estimates and the properties of estimators
CO3	Apply test of Hypotheses and use Non-Parametric test
CO4	Construct and conduct F-test, and Analysis of Variance and interpret the results obtained
CO5	Acquire an In-depth knowledge on Ms-Excel and SPSS packages

**MAPPING- COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME:**

CO/PSO	PSO 1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	1	3	3	2	3
CO2	2	1	3	2	1	3
CO3	2	2	3	3	2	3
CO4	2	2	3	3	2	3
CO5	2	2	3	3	2	3
AVERAGE	2	1.6	3	2.8	1.8	3

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATLY CORRELATED -2  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

**SEMESTER II**  
**MANAGERIAL ECONOMICS**

**Total Hours: 60**

**Course Code: 3P18/2E2/MGE//8P18/2E2/MGE**

**Credits: 3**

**LTP: 4/0/0**

**COURSE OBJECTIVES:**

1. To enable the student to understand various economic models and inventory control.
2. To help them to analyse the role played by Government in market economy.
3. To help them in selecting projects and to understand about Economic and Business forecasting.

**COURSE OUTLINE:**

**UNIT I:** Definition of Economic Models – Types of Models – Analysing Cases in Managerial Economics – Usefulness of Case Study Method – Limitations of Case Study Method.

(15Hours)

**UNITII:** Inventory Management- Types of Inventory - Methods of Inventory Control – EOQ – ABC –VED Analysis.

(10Hours)

**UNIT III:** Role of Government in Market Economy – Legal and Social Framework – Restraining Unfair Competition – Increasing Market Power – Reallocation of Resources – Redistribution of Income – Regulation of Natural Monopoly – Stabilisation of the Economy.

(15Hours)

**UNITIV:** Risk in Project Analysis – Selection of a Project – Finite Horizon Method Certainty – Equivalent Approach – Decision Tree Approach – Sensitivity Analysis – Capital Budgeting – IRR –NPV.

(10Hours)

**UNITV:** Forecasting - Economics and Business Forecasting Methods of Economic Forecasting – Evaluating Forecasts

(10Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Metha.P.L., “Managerial Economics – Analysis, Problems and . Cases”, Sultan Chand & Sons, New Delhi, 2016
2. W.Bruce Allen, Neil A.Doherty, Keith Weigelt & Edwin Masfield – Managerial Economic Theory, Applications and Cases, W.W.Norton Company, London, 6<sup>th</sup> Edition, 2005.

### **BOOKS FOR REFERENCE**

1. Arnold, Chapman, Introduction to Material Management: Pearson, 5<sup>th</sup> Edition, 2008.
2. Eugene F Brigham, “Financial Management Theory and Practice”, 2<sup>nd</sup> Hinsdale III – the Dryden Press, 2014.
3. Idenbaum, M.L (1979), “Business, Government and the Public, Englewood Cliffs, N.J Prentice Hall, India.
4. Michael R Baye – Managerial Economics & Business Strategy – Mc. Graw Hill, USA, 5<sup>th</sup> Edition 2006.
5. Teman, D.R. and Stone Hill A.L., “Multi National Business Finance”, Pearson Prentice Hall, 2012.

### **JOURNALS:**

1. The IUP Journal of Managerial Economics, IUP Publications
2. Asian Journal of Research in Business Economics and Management (AJRBEM)

### **E-LEARNING RESOURCES:**

1. [www.nic.edu/calt/olc](http://www.nic.edu/calt/olc)
2. <https://ocw.mit.edu>
3. <https://libguides.humboldt.edu/openedu/econ>
4. <https://online.stmary.edu/mba/courses/managerial-economics>
5. [www.gettingsmart.com](http://www.gettingsmart.com)

**COURSE OUTCOMES:**

On completion of the course the students will be able to:

CO Number	CO STATEMENT
CO 1	Explain the models and analyse case studies
CO 2	Assess the various methods of inventory control
CO 3	Discuss the role played by Government in market economy.
CO 4	Analyse the risks involved in projects
CO 5	Identify Economic and Business forecasting techniques

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	2	3	2	3	3
CO2	3	1	2	1	2	3
CO3	3	3	3	1	3	3
CO4	3	2	3	2	2	3
CO5	2	2	3	3	2	3
AVERAGE	2.8	2	2.8	1.8	2.4	3

KEY: STRONGLY CORRELATED-3  
2WEAKLY CORRELATED -1

MODERATLY CORRELATED -  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – II

### HEALTH CARE MANAGEMENT

Total Hours:60

Course Code:3P18/2E/HCM

Credits: 3

LTP :3/1/0

#### COURSE OBJECTIVES:

1. To enable students to understand about the health care administration and medical care.
2. To create awareness about Health Insurance and First Aid
3. To understand the recent trends in medical tourism and health insurance.

#### COURSE OUTLINE:

**UNIT I:** **Definition** of Health – Health as a Component of Human Resource Development– Health as a Commodity and Service – Scope of Health Management.

(10Hours)

**UNIT II:** Health Awareness – Health Education - Approaches to Health Education – Health Education and Health Services – Planning Health Education.

(10Hours)

**UNIT III:** Health Management – Preventive Care and Curative Care – Individual Health Care -Role of the State in Health Care – Privatization and Health Care – Rural Health Care – Telemedicine.

(15Hours)

**UNIT IV:** Health Insurance – Private – Government – Recent Trends.

(10Hours)

**UNIT V:** First Aid – Need for First Aid – Methods of First Aid – Medical Tourism – Health Tourism in India.

(15Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Pradeep, Bharadwaj “Health Care Management” Jaypee Publications, Delhi 2015
2. J.Stuart Showalter, “The Law of Healthcare Administration” , Health Administration Press, 2007

### **REFERENCE BOOKS:**

1. Kieran, Walshe, et.al, Health Care Management –2011, Mc.Graw Hill EducationUK.
2. Lawton Robert Burns et.al.,Health Care Management Organisation, Design and Behaviour- 2012, DELMAR, Cengage Learning,USA.
3. Nancy H Shanks and Sharon B Buchbinderi, Introduction to Health care Management –, Feb 2007, Jones and Bartleth LearningCanada.
4. Daniel B.McLaughlin and John R.Olson, Health care Operations Management - Introduction to Health Care Management , Leadership in Health Services- Vol 21, No.3, Emerald Group Publishing Limited

### **JOURNALS:**

1. Journal of Health Care Management
2. Journal of Health Management

### **E-LEARNING RESOURCES:**

1. <http://human-resources-health.biomedcentral.com>
2. <http://bmjopen.bmj.com>
3. <http://www.e-lfh.org.uk>
4. <http://www.nnit.com>
5. <https://link.springer.com>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to

CO Number	CO STATEMENT
CO 1	Discover the importance of health as a component of human resource development and the scope of health management
CO 2	Summarize the importance of Health Education and its planning
CO 3	Identify the importance of preventive and curative care
CO 4	Appraise the recent trends in health insurance
CO 5	Evaluate the growth of medical tourism in India

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	2	3	3	3	2
CO2	3	2	3	3	3	3
CO3	3	3	2	3	3	2
CO4	3	2	3	2	3	3
CO5	3	3	3	3	3	3
AVERAGE	3	2.4	2.8	2.8	3	2.6

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		



## SEMESTER – III

### INDIAN ECONOMY

Total Hours: 90

Course Code: 3P18/3C/IEY//8P18/3C/IEY

Credits: 4

LTP: 3/3/0

#### COURSE OBJECTIVES:

1. To familiarize students with the sectoral development in the Indian Economy.
2. To analyse the various recent economic policies.
3. To review the impact of FDI on Indian Economy.

#### COURSE OUTLINE:

**UNIT I:** Features of Indian Economy - Indicators of Development - Human Development Index (HDI), Gender Development Index (GDI), PQLI, DAILYs, Happiness Index- Rank of India- The Theory of Demographic Transition –Size and Growth of Population in India – Birth Rate –Death Rate – The Sex Composition of Population –Age Composition –Density of Population–Urbanisation

(20 Hours)

**UNIT II:** Meaning, Types and Models- Mahalanobis - Input Output Multi-Sectoral Model– Planning Commission – Overview of Indian Five Year Plans - Eleventh and Twelfth Five Year Plans – Objectives- Evaluation and Appraisal- NITIAayog.

(20 Hours)

**UNIT III:** Agricultural Growth – Major Factors Affecting Growth Potential – Agricultural Crisis and Rural Distress – Crop Insurance – Organic Farming – Agriculture Price Policy – Minimum Support Price linked with Production Cost – Food Management and Food Security.

(15 Hours)

**UNIT IV:** Industrial Growth – Index of Industrial Production – Performance of the Eight Core Industries – FIRE Sector – MSME – Make in India – Start Up India – Implementation of GST and its impact on Industrial sector.

(20 Hours)

**UNIT V:** FDI – Types – Trends in FDI inflows – Sectoral Composition – FDI Policy – FDI Inflows and its Impact on Indian Economy.

(15Hours)

### **RECOMMENDED TEXT BOOKS:**

1. I.C.Dhingra “ Indian Economy”,Sultan Chand and Sons, New Delhi,2016.
2. Uma Kapila, “Indian Economy – Performance and Policies”, 16<sup>th</sup> Edition – Academic Foundation, New Delhi2015-16.

### **REFERENCES BOOKS**

1. Economic survey – Vol.2, Government of India, Ministry of Finance, Department of Economic affairs, Economic Division, August2017.
2. Gupta K.R, “Indian Economy:Issues and Concerns”,Atlantic Publishers and Distributors Pvt.Ltd,2018.
3. Dutt and Sundaram, “Indian Economy”, Sultan.Chand and Sons,2013.
4. Chandra ShekharPrasad,“Indian Economy- A Performance Review”, New Century Publications,2010.
5. Misra and Puri; “Indian Economy”, Himalaya Publication House, New Delhi2012.

### **JOURNALS:**

1. Indian Economic Journals Sage Publications
2. International Journal of trend In Scientific Research and Development

### **E-LEARNING RESOURCES:**

1. [hdr.undp.org>themes>ind](http://hdr.undp.org/themes/ind)
2. [data.gov.in>five-yearplans](http://data.gov.in/five-yearplans)
3. [www.india.gov.in>agriculture](http://www.india.gov.in/agriculture)
4. [www.ibef.org>industry](http://www.ibef.org/industry)
5. [www.ibef.org>economy>fdi](http://www.ibef.org/economy/fdi)

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to

CO NUMBER	CO STATEMENT
CO 1	Discuss the indicators of growth and the latest methods of farming with food management and food security.
CO 2	Review the status of economic farming in India.
CO 3	Identify the challenges of agricultural sector.
CO 4	Appraise the role of the industries in the current scenario.
CO 5	Analyse the impact of FDI on the Indian Economy.

**MAPPING- COURSE OUTCOME WITH PROGRAMME SECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	2	3	2	1	1	1
C02	2	2	1	2	2	2
C03	2	2	1	2	2	2
C04	3	3	2	2	2	2
C05	2	2	2	1	2	2
AVERAGE	2.2	2.4	1.6	1.6	1.8	1.8

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER-III

### MONETARY ECONOMICS

Total Hours: 75

Course Code: 3P18/3C/MOE//8P18/3C/MOE

Credits :4

LTP: 3/2/0

#### COURSE OBJECTIVES:

1. To understand the role of money supply in an economy.
2. To understand the role of banking and non banking financial intermediaries
3. To enable students to understand the impact of monetary policy on the economy.

#### COURSE OUTLINE:

**UNIT I:** Demand for Money – The Classical Quantity Theory of Money – Cash Balance - Keynesian Theory of Demand for Money – The Post Keynesian Theory- Milton Friedman - W.J.Baumol - James Tobin – Don Patinkin’s Real Balance Effect – Transmission Mechanism of Monetary Policy.

(15Hours)

**UNIT II:** Supply of Money – Measures of Money Supply – Determination of Money Supply – Currency Circulation in India – Empirical Relationship between Money Supply and Prices.

(15Hours)

**UNIT III:** Implementation of Basel Norms – Capital Adequacy Ratio - Commercial Banks – Balance Sheet Analysis – Financial Indicators – Current ratio / Liquidity ratio – Debt-equity ratio – Tangible Network Operative Income – Return on Investment – Assets – Bankruptcy – Insolvency Code Act.

(15 Hours)

**UNIT IV:** Financial Intermediaries – Non Banking Financial Intermediaries (NBFI) – Nature – Functions – Money and Capital Market in India.

(15Hours)

**UNIT V:** Phillip’s & Long Run Phillip’s Curve - Monetary Policy – Expansionary and Restrictive Monetary Policy - Time Lags in Monetary Policy- Recent Indian Monetary Policy - Demonetization and its Impact.

(15 Hours)

**RECOMMENDED TEXT BOOKS:**

1. R.R.Paul, Monetary Economics, Kalyani Publishers,2015.
2. Gold Field and Chandler , The Economics of Money and Banking, Harper and Row, New York(2005

**REFERENCE BOOKS:**

1. Don Patinkin Money, Interest and Price: An Intepretation of Monetary and Value Theory. A Harper, International Edition.
2. M.L.Seth-Money, Banking, International Trade and PublicFinance-Lakshmi NarianAgarwal –2017.
3. Weekly Statistical Supplement –RBI.
4. William WarrandCarlile. Monetary Economics, WentWorth Press Publishers 2016.
5. M.LJhingan “Monetary Economics- 7<sup>th</sup> Edition “ Vrinda Publications, 2015
6. R.D.Gupta&R.K.Lekhi “ Keynes and Post Keynesian Economics”,Kalyani Publishers,2017

**JOURNALS:**

1. Journal of Monetary Economics-Elsevier.
2. International Journal of Monetary Economics and Finance(IJMEF)

**E- LEARNING RESOURCES:**

1. <https://www.scimagogar.com>
2. [jme.rochester.edu](http://jme.rochester.edu)
3. <https://www.journals.elsevier/IDEAS/RePEC>.
4. <https://econpapers.repec.org>
5. <https://www.inderscience.com/jhome.php?jcode=ijmef>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Examine the latest developments in theories of demand for money.
CO 2	Quantify the relationship between money supply and price.
CO 3	Assess the financial strength of the commercial banks.
CO 4	Appraise the role of financial and non-banking financial intermediaries.
CO 5	Analyse the recent monetary policy changes and its impact on Indian economy.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	3	3	2	3	2
CO2	3	2	2	2	3	2
CO3	3	3	2	3	3	2
CO4	3	3	2	3	3	2
CO5	3	3	3	3	3	2
AVERAGE	3	2.8	2.4	2.6	3	2

KEY: STRONGLY CORRELATED-3

MODERATLY CORRELATED-2

WEAKLY CORRELATED -1

NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER-III

### RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS IN ECONOMICS

TotalHours:75

Credits : 4

Course Code: 3P18/3C/RMC//8P18/3C/RMC

LTP: 2/2/1

#### COURSE OBJECTIVES

1. To understand the scientific research process.
2. To know and apply statistical tools
3. To learn the computer applications in executing economic research.

#### COURSE OUTLINE:

- UNIT I:** The Scientific Approach – Aims of Social Sciences –Scientific Sciences – Scientific Revolution – Role of Methodology – Research Process – Conceptual Foundation of Research – Economic Theory and Methods – Axiomatic, Mathematical and Historical Methods – Theory, Models and Empirical Research – Basic Elements in Research – Identification of a Research Problem–Hypothesis Formulation and Testing–Research Process– Ethics in Research.  
(15Hours)
- UNIT II:** Principles and Process in Data Collection – Primary Data – Case Study Method–Survey Research – Sample Selection – Sampling Design – Preparation of Structure Interview Schedule – Construction of Questionnaire – Pilot Study – Classification and Tabulation – Diagrammatic Representation – Secondary Data – Sourcing of Data for India and Tamil Nadu – Census of India, NSSO, Economic Survey, RBI Report, Agricultural Census, Annual Survey of Industries.  
(15Hours)
- UNIT III:** Concept of Data, Record and File – Type of Data and Data Structure – Data – File handling and operations – Data storage and retrieval – Data Operations – Algorithms like Sorting, Merging, Joining and Bifurcation – Data Base Concept and Operation on Data Base.  
(15 Hours)
- UNIT IV:** Series – Group tables – Groups and objects – Time and Frequency Series – Regression Methods and Techniques – Regression Analysis – Trends and Forecasting – Report writing – Plan of Research report – Style & Mechanics of writing Research report.  
(15Hours)
- UNITV:** Application of Software to Economic Research – (Practical Classes).  
(15 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. C.R Kothari and GauravGarg, “Research Methodology: Methods and Techniques”,New Age International Publishers,2019.
2. Dr.Priti R. Majhi and Dr.PrafullK.Khatua, “Research Methodology (Concepts, Methods, Techniques and SPSS), Himalaya Publishing House, 2013.

### **REFERENCE BOOKS:**

1. A.K.Das Gupta, MethodologyofEconomicResearch,Asia Publishing House, 1995.
2. Robert Feber and P JVerdoorn, Research Methods in Economics and Business, The Macmillian Company (2005)
3. Goode, William J and Paul K Hatt, Methods in Social Research, McGraw Hill International Book Co.,London.,1983.
4. Young, Pauline V, Scientific Social Surveys and Research, Prentice Hall of India, NewDelhi,1977,
5. C.Rangarajan – GOI –Commission forStatistics.

### **JOURNALS:**

1. International Journal of Quantitative and Qualitative Research Methodology
2. International Journal of Research Methodology

### **E-LEARNING RESOURCES:**

1. <https://www.khanacademy.org>
2. <https://www.economicsnetwork.ac.uk>el>.
3. <https://elearneconomics.com>
4. <https://libguides,wits.ac.za>
5. <https://research-methodology.net>



**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Identify the research problem and research process scientifically.
CO 2	List the various methods and sources of collecting data.
CO 3	Explore the software tools in data maintenance and operations.
CO 4	Apply statistical tools in analyzing the project report.
CO 5	Apply software in conducting research in economics.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	1	2	2	1	2
CO2	2	3	3	2	2	3
CO3	1	2	3	3	3	3
CO4	2	3	3	3	3	3
CO5	3	3	3	3	3	3
AVERAGE	2.2	2.4	2.8	2.6	2.4	2.8

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATLY CORRELATED -2  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER- III

### ECONOMICS OF SOCIAL ISSUES

Total Hours: 60

Course Code:

3P18/3E3/ECSCredits :3

LTP : 3/1/0

#### COURSE OBJECTIVES

1. To enable students to gain factual knowledge about the social issues
2. To make judgement and independent analysis on contemporary issues
3. To identify vital parameters of indices.

#### COURSE OUTLINE:

- UNIT I:** Social Economics- Definition –Scope –Equality in Human Societies –PrinciplesofSocialDoctrines–Gandhi–KarlMarx–MaxWeber–Voltaire– Rosseau – Gandhi – Social problems –UrbanandRural.  
(10Hours)
- UNIT II:** Poverty - Global Poverty (an assessment) - Causes and Consequences of Poverty – Sustainable Development - Role of Poverty Social Security –Social Banking –Migration related poverty issues – Slums – RemedialMeasures.  
(10 Hours)
- UNIT III:** Unemployment-Meaning – Types – Causes – Employment in Organized and Unorganized Sectors – Work Participation Rates – Wages – Standard of Living – Unemployment and Social Unrest. Self Help Groups- Nature - Structure and Objectives of Self Help Groups – SHG and Worker’s Empowerment –SHG in India  
(15 Hours)
- UNIT IV:** Human Capital -Components of Human Capital –Issues related to Secondary and Higher Education – Health and Health related Issues in Development – Human Development Index –GenderDevelopment Index.  
(10Hours)
- UNIT V:** Economics of Black Economy and Crime- Black money - Definition – Sources – Corruption - Parallel Economy - Economic Issues –Causes and Consequences-Remedies-Consumerism –Cyber Crime – Hacking, Attack Vectors, Mobile Security Issues - Digital Crime – Crime against Women and Children - Human Rights Violation –Dimensions of Terrorism.  
(15Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Ishwar .C Dhingra ,”Economic and Social Issues India & International for RBI, NABARD& other Competitive Exams”., Cosmos Book Hive, Jan 2016.
2. Ram Ahuja, “Social Problems in India”, Rawat Publication, 2014.

### **REFERENCE BOOKS:**

1. CulyerA.J, The Economics of Social Policy, Martin Robertson and Co Ltd,London, 1973.
2. Dreze Jean and Amartya K Sen Hunger and Public Action, Clevedon Press, Oxford,(1989).
3. Dutt&Sundharam, “Indian Economy”, S. Chand Publishers, 2018
4. India 2018, A Reference annual. Publication division Government of India
5. DhruvKumar ,Economics and Social issues in India-. Ramesh Publishing House, 2018.

### **JOURNALS:**

1. Journal of Socio and Economic Development- Springer.
2. International Journal of Social Economics

### **E-LEARNING RESOURCES:**

1. <https://www.boell.de>
2. [www.globalissues.org](http://www.globalissues.org)
3. <https://www.mheducation.com>
4. <https://socialeconomics.org>
5. <https://www.economist.com>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Outline the social doctrines of economic thinkers
CO 2	Analyse global poverty and its remedial measures
CO 3	Evaluate the impact of unemployment and the role of self-help groups
CO 4	Identify the vital parameters relating to health and human capital
CO 5	Develop awareness about black money and cyber crimes

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	1	2	2	1	2	2
CO2	3	3	2	2	3	2
CO3	3	3	2	3	3	2
CO4	2	3	3	2	3	3
CO5	3	3	1	2	3	2
AVERAGE	2.4	2.8	2	2	2.8	2.2

KEY: STRONGLY CORRELATED-3  
2WEAKLY CORRELATED -1

MODERATELY CORRELATED -  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

**SEMESTER – III**  
**ECONOMICS OF INFRASTRUCTURE**

**Total Hours: 60**

**Credits: 3**

**Course Code : 3P18/3E4/EIS**

**LTP :3/1/0**

**COURSE OBJECTIVES:**

1. To enable the students to understand the development of Infrastructure over the period of time.
2. To identify the strategies required for the growth of the Economy in the present scenario.
3. To assess the role of public and private sector

**COURSE OUTLINE:**

**UNIT I:** Infrastructure and Economic Development – Infrastructure as a Public Good; Social and Physical Infrastructure; Special Characteristics of Utilities - Peak – load, Off- Load problem –Dual Principal (PLE) Controversy. (10Hours)

**UNIT II:** The Structure of Transport Costs and Location of Economic Activities - Demand Transport - Models of Freight and Passenger Demand - Models Choice; Cost Function in the Transport Sector - Principle of Pricing - Special Problems of Individuals Modes of Transport – Impact on Economic Development. (15Hours)

**UNIT III :** Private Sector Participation in Communication - Primacy of Energy in the process of Economic Development – Factors Determining Demand for Energy – Effects of Energy Shortage – Energy Conservation – Renewable and Non – Conventional Sources of Energy – The search for an Optimal Energy Policy in Indian context. (15Hours)

**UNITIV:** Organization and Financing of Services – Private Vs Public Sector Financing - The fixation of Prices of Social Services – Health - Education - Human Development – Scope and Relevance of Human Resource Development – Education and Economic Growth – Educational planning – Social Demand – The case for Universal – Free - Primary Education - Structure of Higher Education and Problems of Financing in India - Issues in Education Policy – Importance of Health and its Impact on Economic Development. (10Hours)

**UNIT V:** Infrastructure in Modern India – Strategies for Infrastructure Development – Differences in infrastructure building between China and India - Infrastructure Investments in India – Prioritisation of Infrastructure sectors for Development -Macro perspective of Infrastructure Development in India – Infrastructure and plans. (10 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. L.N Dash -Economics of Infrastructure- Growth and Development
2. Joshi B.M- Infrastructure and Economic Development in India

### **REFERENCEBOOKS :**

1. Gayal, S.K (Ed.) (1995),Public Enterprises, Indian InstituteofPublic Administration, NewDelhi.
2. Indian Council of Social Sciences Research (ICSSR) (1976), Economics of infrastructure, Vol . VI NewDelhi.
3. MajumderRajarshi, “Infrastructure and Development in India Interlinkages and Policy Issues”, Rawat Publications, 2008.
4. World Bank Infrastructure Report1994.
5. J.G.ValanArasu, “Globalization And Infrastructural Development In India”, Atlantic edition 2008

### **JOURNALS:**

1. Journal of Development Policy and Practice
2. Journal of South Asian Development

### **E-LEARNING RESOURCES:**

1. <https://www.indianeconomy.net/splclassroom/major-urban-infrastructure-development-programmes-in-india/>
2. [www.decd.org>edu>leri](http://www.decd.org>edu>leri)
3. <https://www.toppr.com/ infrastructure-and-economic-development/>
4. <http://www.yourarticlelibrary.com/human-resource-development/>
5. <https://www.nber.org>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Explain the basic concepts in Infrastructure
CO 2	Assess the Structure of Indian Transport System
CO 3	Evaluate the importance of energy sector
CO 4	Analyze the role of public and private sector
CO 5	Review the Global Perspective of Infrastructure

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	3	2	3	3	3
CO2	3	3	3	3	3	3
CO3	3	3	2	3	2	3
CO4	3	3	2	3	3	3
CO5	2	3	2	3	3	3
AVERAGE	2.8	3	2.2	3	3	3

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATELY CORRELATED -2  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – III

### HOSPITAL ADMINISTRATION

Total Hours: 60

Course Code :3P18/3E/HAD

Credits : 3

LTP : 3/1/0

#### COURSE OBJECTIVES:

1. To help the students to understand the theoretical fundamentals of hospital administration.
2. To impart knowledge on Accounting and budgeting principles in hospital administration
3. To make them know medical ethics

#### COURSE OUTLINE:

**UNIT I:** Definition of Hospital Administration – Administrative Functions – Modern Techniques – Health Care Marketing – Challenges in Hospital Administration.

(10Hours)

**UNIT II:** Accounting Principle – Systems – Budgeting Process- Depreciation.

(10Hours)

**UNIT III:** Human Resources Planning - Application to Staffing – Management of Doctors Unit - Management of Nursing Unit - Supporting Unit - Quality of Care.

(15Hours)

**UNIT IV:** Information and Communication in Hospital Administration - Barriers to Communication – Electronic Maintenance of Records.

(15Hours)

**UNIT V:** Medical Ethics – A Case Study of Private Hospital Administration (Multi- Speciality Hospital-Super Hospital-Corporate Hospitals).

(10Hours)



### **RECOMMENDED TEXTBOOKS:**

1. R.M.Sakharkar , “**Principles of Hospital Administration and Planning**”,Jaypee Brothers Medical Pub, 2008.
2. G.D.Kunders, “**Hospitals Facilities Planning and Management**”, McGraw Hill Education, 1<sup>st</sup> Edition,2017.

### **REFERENCE BOOKS:**

1. Syed Amin Tabish, “**Hospital and Health Services Administration**”, OUP New Delhi,2001.
2. Amarjeet Singh SonuGoel and Anil Kumar Gupta ,“**Hospital Administration A Problem – Solving Approach,**” Elsevier,2013.
3. Yaspal Sharma, RK Sharma ,Libert Anil Gomes, “**Hospital Administration Principles and Practices**”,Jaypee Brothers Medical Publication Pvt. Ltd New Delhi, 2013.
4. D.RamBabu , “**Reality of Hospital Administration**”,Jaypee Brothers Medical Publication, New Delhi, 2014.
5. DC Joshi Mamta Joshi, **Principles of Hospital Administration — JaypeeBrothersMedical Publication Pvt. Ltd -2008 – New Delhi.**

### **JOURNALS:**

1. International Journal of Research Foundation of Hospital and Healthcare Administration.
2. Journal of Hospital Administration.

### **E-LEARNING RESOURCES:**

1. <http://www.springboard.com>
2. [www.healthcare-management-degree.net](http://www.healthcare-management-degree.net)
3. <https://carrington.edu>
4. [www.gettingsmart.com](http://www.gettingsmart.com)
5. <https://www.quora.com>

**COURSE OUTCOMES:**

On Completion of the Course the student will be able to:

CO Number	CO STATEMENT
CO 1	Identify the challenges in hospital administration
CO 2	Apply the accounting principles in the budgeting process.
CO 3	Assess the importance of human resource planning.
CO 4	Identify the importance of communication
CO 5	Appraise medical ethics.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	3	3	3	3	2
CO2	3	2	2	3	2	2
CO3	3	3	3	2	3	3
CO4	3	3	3	3	3	3
CO5	3	3	2	2	3	3
AVERAGE	3	2.8	2.6	2.6	2.8	2.6

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER III

### YOGA AND MEDITATION FOR BETTER LIVING

Total Hours : 30

Credits:2

Course Code:3P18/3S/YML//8P18/3S/YML

LTP: 1/0/1

#### COURSE OBJECTIVES :

1. To enable the students to inculcate the art of Yoga Mudras and Acupressure
2. To help students experience stress relief and rejuvenation

#### COURSE OUTLINE:

**UNIT I:** Yoga – Introduction – Yoga as a science of art - The five elements – Balancing the five elements- Yoga and Health Benefits ( The physical and Mental) – Theoretical insight into 12 Asanas – Pranayama techniques – Surya pranayama – Nadishuddi and Bastrika – Diet – Nutrition and Health – Understanding Human anatomy and Acupressure Points and benefits.

(10Hours)

**UNIT II:** Meditation – Introduction – Brain Wave Patterns – Functions of Right brain & Left brain- The sub Conscious Mind – Chakras – Anthakarna – Koshas – Goal visualization – The physical body and the Etheric body – Positive affirmations.

(10Hours)

**UNIT III:** Practice on 12Asanas and simplified physical exercises – Practical sessions on Meditation –Surya Namaskar– Practical lessons on fewMudras.

(10Hours)

**RECOMMENDED TEXTBOOKS:**

1. B.K.S.Iyengar,"Light on Yoga: The Classic Guide to Yoga By the World's Foremost Authority",Harper Collins,India,2006.
2. Mark Stephens,"Teaching Yoga Essential Foundations and Techniques", North Atlantic Books, 2009.

**REFERENCEBOOKS :**

1. Meditation for Beginners –Vikasthalkani.
2. Simplified Physical Exercises – VethathiriMaharishi.
3. Yoga Sutras of Patanjali – HariharanandaAranya, University of Calcutta Press, Calcutta.

**E - LEARNING RESOURCES:**

1. <https://www.verywellfit.com>
2. <https://www.meditationrelaxclub.com>
3. <https://www.heartfulness.org>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

<b>CO Number</b>	<b>CO STATEMENT</b>
CO 1	Synthesize on theoretical aspects of Asanas and Pranayama techniques
CO 2	Rejuvenate body & mind through meditation
CO 3	Practice simple exercises based on Asanas and Mudras

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

<b>Knowledge Level</b>	<b>Section</b>	<b>Word Limit</b>	<b>Marks</b>	<b>Total</b>	<b>Special Instructions if any</b>
K 3,K4,K5	A-10/12X5 marks	100	50	50	Question No.- is compulsory

**SEMESTER- IV**  
**ECONOMICS OF GROWTH AND DEVELOPMENT**

**Total Hours: 90**

**Course Code: 3P18/4C/EGD//8P18/4C/EGD**

**Credits:4**

**LTP: 3/3/0**

**COURSE OBJECTIVES:**

1. To enable the students to know about Development indices and Development & Growth models
2. To enable the students to become competent for NET & SET Exams
3. To make them understand growth oriented strategies

**COURSE OUTLINE:**

- UNIT I:** Introduction – Economic Growth, Economic Development and Sustainable Development – Vicious Circles of Poverty, Measures of Development: HDI and Quality of Life Indices, Measures of Inequality, Development Gap, Country Characteristics and Cross Country Comparisons, Relationship between Population, Poverty and Environment – Global Happiness Index.  
(15 Hours)
- UNIT II:** Model of Growth – Harrod – Domar Model – Nobel Laureate Robert Solow Model of Steady – Growth – Joan Robinson’s Model – Meade Steady Growth Model – Kaldor’s Growth Model – Two Sector Model of Uzawa.  
(20Hours)
- UNIT III:** Theories of Development – Adam Smith, Thomas Robert Malthus – Nobel Laureate Arthur Lewis – Model of Development – Ranis and Fei Model of ‘Dual Economy’ – Harris – Todaro Model of ‘ Rural – Urban Migration’ - Jorgensons Model- Dixit and Margline Model.  
(20Hours)
- UNIT IV:** Choice of Techniques and Appropriate Technology – Nobel Laureate James M. Buchanan (1986) Cost – Benefit Analysis – Myrdal Theory of Cumulative Causation – Shadow Prices – Leibenstein’s Critical Minimum Effort Theory.  
(20Hours)
- UNIT V:** New Technology and Sustainable Agriculture- Globalization and Agriculture- International Trade as an engine of growth, inward looking and outward oriented strategies for development, Import Substitution and Export led growth, Dual Gap Analysis- A Paradoxical Theorem (Mundell).  
(15 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Taneja & Meier – “Growth & Development Model & Planning”, 2015
2. A.P. Thirlwall, “Growth and Development with Special reference to Developing Economies”, Macmillan Education Limited 4th Edition. 1989.

### **REFERENCE BOOKS:**

1. Benjamin Higgins “Economic Development, Problems, Principles and Policies”, Constable, 1968.
2. Debraj Ray, “Development Economics”, Oxford Indian Paperbacks, 1998.
3. Hywel G Jones “An Introduction to Modern theories of Economic Growth” McGrawHill, 1976.
4. Kaushik Basu, “Analytical Development Economics: The Less Developed Economy Revisited”, Oxford Indian Paperbacks, 1998.
5. M.L. Jhingan The Economics of Development and Planning, Vrinda Publication New Delhi, 2017.

### **JOURNALS:**

1. Journal of Development Economics.
2. Review of Development Economics.

### **E-LEARNING RESOURCES:**

1. <http://www.coursera.org/learn/economics>
2. [www.economicdiscussion.com](http://www.economicdiscussion.com)
3. [www.intelligenteconomist.com](http://www.intelligenteconomist.com)
4. [www.iegindia.org](http://www.iegindia.org)
5. <http://link.springer.com>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Compare the various development indices and Marco Economic indicators
CO 2	Critically review various theories of growth
CO 3	Analyse efficiently various theories of development
CO 4	Make choice in techniques of production
CO 5	Assess the concept of Sustainable Development & Growth oriented strategies.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	3	3	3	3	3
CO2	3	3	3	2	3	2
CO3	3	3	3	2	3	2
CO4	3	3	2	3	3	2
CO5	3	3	2	3	3	3
AVERAGE	3	3	2.6	2.6	3	2.4

KEY: STRONGLY CORRELATED-3

MODERATLY CORRELATED -2

WEAKLY CORRELATED -1

NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		



**SEMESTER – IV**  
**INTERNATIONAL ECONOMICS**

**Total Hours : 90**

**Credits : 4**

**Course Code : 3P18/4C/INE//8P18/4C/INE**

**LTP: 3/3/0**

**COURSE OBJECTIVES:**

1. To enable the students to understand the theories and factors determining international trade.
2. To help them know about the determination of exchange rates and FDI
3. To help them understand the role of institutions in regulating international trade

**COURSE OUTLINE:**

**UNIT I:** Theories of International trade – Samuelson’s Factor – Price Equalisation Theory - Factor Intensity Reversals – Single – Multiple – Stolper Samuelson Theorem - Rybczynski Theorem – Leontief Paradox, Immiserising growth.  
(15Hours)

**UNIT II:** Trade welfare and Terms of Trade of a Small country and Large country - Factors determining Terms of Trade - Gains from trade – Potential gain and Actual gain - Gains from Trade in the case of Large and Small country – Static gain and Dynamic gain - Preferential Trade Areas (PTAs) - Free Trade Areas (FTAs) - TRIPS - TRIMS - TPRM.  
(20 Hours)

**UNIT III:** Exchange control measures – Objectives - Methods – Determination of Equilibrium Exchange Rate – Theories – Mint Par – Purchasing Power Parity - Balance of Payment theory – Fixed versus Flexible Exchange Rate; Financial Globalisation and Financial Crisis.  
(20Hours)

**UNIT IV:** Foreign Direct Investment – Types – Merits and Demerits  
Role and Functions of Multinational Corporations and MNCs –  
Technology transfer - Impact of Foreign Capital on India’s Economic Development - Outflow of FDI.  
(20Hours)

**UNIT V:** IMF - World Bank - GATT - WTO - European Bank for Reconstruction and Development - G20 - ADB - BRICS - Brexit - Globalisation and its Impact to India’s Trade – Rationale and Impact of Trade Reforms since 1991 on BOP, FDI, Employment and Growth - Trading Blocs – SAARC – NAFTA – EU – ASEAN.  
(15 Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Francis Cherunilam, "International Economics", McGraw Hill Publishers 5<sup>th</sup> Edition, 2013
2. Dominick Salvatore – "International Economics". John Wiley International Student Edition, 2014.

### **REFERENCE BOOKS:**

1. Bo Sodersten- International Economics, Macmillan Press Ltd London 2014.
2. Charles. P Kindleberger – International Economics. Macmillan Press Ltd London, 1999.
3. Paul Krugman, Mauris Obstfeld and Marc Melitz, Addison- Wesley International Economics Theory and Policy, Pearson Education Indian Edition, 2014.
4. Robert Carbaugh- International Economics- Cengage Learning, 2016.
5. M.L. Jhingan International Economics. M.L. Vrindha Publications, 2016

### **JOURNALS:**

1. Journal of International Economics Science Direct .com
2. International Economics Elsevier. IDEAS/RePEC

### **E- LEARNING RESOURCES:**

1. <https://journalistresource.org>
2. <https://wps.pearsoned.co.uk>
3. <https://krannert.purdue.edu>
4. <https://journals.elsevier.com>
5. <https://library.qmul.ac.uk>

**COURSE OUTCOMES:**

On Completion of the Course the students will be able to:

CO Number	CO STATEMENT
CO 1	Interpret the theories of international trade.
CO 2	Discuss the concept of terms of trade and various institutional tools
CO 3	Explain the determination of exchange rate
CO 4	Appraise the relationship between foreign direct investment and economic growth.
CO 5	Explore the role of various institutions in facilitating trade between countries.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO6
CO1	3	3	2	2	3	2
CO2	2	3	2	3	2	2
CO3	3	3	2	2	2	2
CO4	3	3	2	2	2	2
CO5	2	3	2	2	3	2
<b>AVERAGE</b>	2.6	3	2	2.2	2.4	2

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED -1

MODERATLY CORRELATED -2  
NO CORRELATION -0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

**SEMESTER IV**  
**ENVIRONMENTAL ECONOMICS**

**Total Hours: 9**

**Credits : 4**

**Course Code: 3P18/4C/ENE//8P18/4C/ENE**

**LTP :3/3/0**

**COURSE OBJECTIVES**

1. To provide students with a sound knowledge and understanding of Environmental Economics.
2. To make them know the hazards of Resources Depletion
3. To enhance student's ability to analyze Environmental policy issues

**COURSE OUTLINE:**

**UNIT I:** Introduction to Environment in Economic Theory – Classification of Resources – Material Balance Approach.

(15Hours)

**UNIT II:** Environmental Resources – Scarcity and Choice – Economic Efficiency; Efficient allocation - Efficiency in Consumption Production and Product Run Efficiency - Social Welfare Function and Optimality - Inter – Temporal Efficiency - Optimal allocation and a market Economy – Market Failure and Public Policy – Externality and Public Goods- Externality and Economic Efficiency.

(20 Hours)

**UNIT III:** Harvesting Renewable and Non-Renewable Resources – Simple Optimum Resource Depletion Model – Resource extraction in Perfect Competition and Monopolistic market – Dynamic of Resources Harvesting – Socially optimal resource harvesting - Economics of Forestry – Conservation of Resource

(20 Hours)

**UNITIV:** Pollution and Depletion of Quality and Quantity of Environmental Resources – Classification of forms of Pollution – Nature of Emissions – Transboundary Pollution– Efficient level of Pollution – Pollution Abatement – Issues in Economics of Pollution – Technological Progress.

(20 Hours)

**UNIT V:** Environment and Economic Policy – Coase Theorem – Economically efficient pollution abatement programs – Forms of Direct regulation (tax, subsidies and permits)- Hedonic Valuation- Economic growth and Natural Environment Population Growth, Economic, International and Global Environmental Population Problems – SDG (Environment Goals).

(15Hours)

### **RECOMMENDED TEXTBOOKS:**

1. Barry C Field and Martha K. Field “Environmental Economics: An Introduction” McGraw –Hill Education.
2. Tom Tietenberg and Lynne “Environmental and Natural Resource Economics” 11<sup>th</sup> Edition, 2017

### **REFERENCE BOOKS:**

1. Karpagam. M., “Environmental Economics”- Sterling Publisher Private Ltd. 1999.
2. Katar Singh and Anil Shishodia “Environmental Economics: Theory and Applications” Sage Publication, 2007.
3. Jeoren C.J.M., Vanden Bergh, “Handbook of Environmental and Resource Economics” ,1999.
4. Al Gore “Earth in the Balance: Ecology and the Human Spirit” Houghton Mifflin, 1992
5. Stern N “The Economics of Climate Change: The Stern Review.” Cambridge University Press, Cambridge, (2007)
6. Mohan Munasinghe “Environmental Economics and Sustainable Development” World Bank Environment Paper Number 3, 1993

### **JOURNALS:**

1. Journal of Environmental Economics and Policy
2. Journal of Environmental Management

### **E-LEARNING RESOURCES:**

1. <https://www.worldbank.org/en/topic/environment>
2. <https://www.unenvironment.org/>
3. <https://theconversation.com/us/topics/environmental-economics-10712>
4. <https://www.downtoearth.org.in>
5. [http://www.rgvi.gtk.szie.hu/system/files/upload/course\\_material/enviroecon-voll.pdf](http://www.rgvi.gtk.szie.hu/system/files/upload/course_material/enviroecon-voll.pdf)

**COURSE OUTCOMES:**

On Completion of the course the students will be able to:

CO Number	CO STATEMENT
CO 1	Identify core concepts in understanding the nature of Environmental problems.
CO 2	Discuss the concept of optimal allocation and reasons for market failure.
CO 3	Analyze theoretical and empirical research in environmental and natural resource Economics.
CO 4	Suggest policies to solve Environmental issues through Economic theory.
CO 5	Assess the extent of damage due to pollution and evaluate the current practices adopted in environmental protection.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	3	1	2	3	2
CO2	2	2	2	2	3	3
CO3	2	3	2	2	3	3
CO4	2	2	2	2	3	3
CO5	2	3	3	2	3	3
<b>AVERAGE</b>	<b>2.2</b>	<b>2.6</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER - IV

### PROJECT

Total Hours: 90

Course Code : 3P18/4C/PRJ

Credits: 4

#### COURSE OBJECTIVES:

1. To enable the students to understand the significance of Empirical Research.
2. Submission of Project Report on any Economic or Social Economic Issue.

## DEMOGRAPHY

TotalHours : 60

Credits: 3

Course Code:3P18/4E5/DEY

LTP:3/1/0

### COURSE OBJECTIVES:

1. To understand the structure of population and its trends
2. To enhance the knowledge of migration and urbanization pattern
3. To make them know the demographic data base and new population policy in India

### COURSE OUTLINE:

- UNIT I:** Meaning and Scope of Demography - Components of Population Growth and their inter - dependence - Measures of population change – Structure - Distribution and Sources of population data - Theories of population – Malthus - Optimum theory of population - Theory of Demographic Transition – Views of Meadows - Enke and Simon - Population and Development. (10Hours)
- UNITII:** Structure of Population- Population trends – PopulationExplosion– Threatened or Real - Distant or Imminent - International aspects of Population Growth and Distribution - Pattern of Age and Sex Structure – Determinants - Demographic effects - Economic and Social Implications - Age Pyramids and Projections – Individual Aging and Population Aging. (15 Hours)
- UNIT III:** Fertility - Nuptiality and Mortality-Importance of study of fertility – TotalFertility Rate - Gross Reproduction Rate and Net Reproduction Rate - Levels and trends of fertility in more and less developed countries - Factor affecting fertility – Socio - economic factors - Trends in age at marriage - Mortality – Types - Levels and trends in developed and less developed countries - Sex and age pattern - Factors for decline immortality - Life table – Construction anduses- ConceptsofStablePopulation-MethodsofPopulationProjection. (15Hours)
- UNITIV:** Migration and Urbanization - Concept and Types – Temporary InternalandInternational-Internationalmigration–Effect-Factors– Theories GrowthandDistributionofRural–UrbanPopulation in Developed and Developing Countries. (10Hours)
- UNIT V:** Demographic Data Base in India - Study of Census in India – Methodology and Characteristics of Census - National Family Health Survey and Rapid Household Survey - Changing characteristics of population - Population Growth Rates - New Population Policy inIndia. (10 Hours)



### **RECOMMENDED TEXTBOOKS:**

1. Sarah Harper, Demography: A Very Short Introduction, Oxford Press 2018.
2. Peter R. Cox, Demography- 5th Edition, Cambridge University Press.

### **REFERENCE BOOKS:**

1. Choubey, P.K, Population Policy in India, Kanishka Publications, New Delhi. . (2000)
2. Demographic Method and Concepts Donald T 2003.
3. Demography: Measuring Modelling Population Summel H Preston Processes –2000
4. Methods and Models in Demography Colin Newell 2003.
5. M.L.Jhingan, B.K. Bhatt, J.N.Desan Demography, Vrinda Publications, Delhi (2003)
6. Edward F Willoughby "Handbook of Public Health & Demography" Franklin Classics Publisher (2018)
7. Siba Prasad Rath "Demography of India –Challenges and Dynamics of India's Population & Census" Lambert Academia Publishing (2013).

### **JOURNALS:**

1. International Journal of Science and Research – Studies in Demography
2. International Educational Applied Research Journal – Journal of Demography

### **E-LEARNING RESOURCES:**

1. [www.economicdiscussion.com](http://www.economicdiscussion.com)
2. <https://ocw.mit.edu>
3. <https://academicearth.org/economics>
4. [https://www.rand.org/monograph\\_reports/](https://www.rand.org/monograph_reports/)
5. [www.kent.ac.uk/demography/](http://www.kent.ac.uk/demography/)

**COURSE OUTCOMES:**

On Completion of the course the students will be able to:

CO Number	CO STATEMENT
CO 1	List the various concepts in demography
CO 2	Analyse the trends in population and its demographic effects.
CO 3	Gain knowledge on various concepts of fertility and methods of population projection.
CO 4	Get an insight on trends of migration and urbanization.
CO 5	Assess the importance of demographic database and new population policy in India.

**MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME**

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	3	3	1	3	3
CO2	3	3	3	1	3	3
CO3	3	2	3	1	3	3
CO4	3	3	3	1	3	2
CO5	3	3	3	2	3	3
AVERAGE	3	2.8	3	1.2	3	2.8

KEY: STRONGLY CORRELATED-3  
WEAKLY CORRELATED-1

MODERATELY CORRELATED-2  
NO CORRELATION-0

**QUESTION PAPER PATTERN**

Knowledge Level	Section	Word Limit	Marks	Total	Special Instructions if any
K 3	A-5/8X8 marks	500	40	100	Question No.- is compulsory
K4,K5	B-3/5x20 marks	1200	60		

## SEMESTER – IV

### EMPLOYABILITY SKILLS

Total Hours: 30

Course Code : 3P18/4S/EMS//8P18/4S/EMS

Credits : 2

LTP : 2/0/0

#### COURSE OBJECTIVES:

1. To train the students to prepare CV.
2. To train and prepare students to get placed in reputed organizations.

#### COURSE OUTLINE:

**UNIT I:** Employability Skills – Verbal Communication – Team Work – Awareness Analysing and investigating – Self Motivation – Drive – Written Communication – Planning and Organising – Flexibility – Time Management- Preparing a Curriculum Vitae - Key Information.

(15Hours)

**UNIT II:** Reasoning- Cognitive Skills- Retention Skills. (5 Hours)

**UNIT III:** Personality Skills- Expressive Skills- Leadership Skills- Attitude and Aims Skills.

(10 Hours)

**COURSE OUTCOMES:**

On Completion of the Course the student will be able to:

<b>CO Number</b>	<b>CO STATEMENT</b>
CO 1	Acquire basic employability skills.
CO 2	Have an insight into cognitive and retention skills
CO 3	Enhance personal skills

**QUESTION PAPER PATTERN**

<b>Knowledge Level</b>	<b>Section</b>	<b>Word Limit</b>	<b>Marks</b>	<b>Total</b>	<b>Special Instructions if any</b>
K 3,K4,K5	A-10/12X5 marks	100	50	50	Question No.- is compulsory