

**(Abstract)**

M A Economics Programme(CBCSS) w.e.f 2020 admission in the University Department- Changing of Open Elective Courses from IV semester to III semester and changing of Elective Course 'Databases on the Indian Economy and Basic Computational Techniques for Data Analysis' from III to IV semester-Modified Scheme, Syllabus and Model Question Papers of the programme w.e.f 2021 admission- Implemented-Order Issued.

**ACADEMIC C SECTION**

Acad/C1/10376/2019

Dated: 12.10.2022

- Read:-1.U.O.No.Acad/C1/10376/2019 dated 15.01.2021, 30.10.2021 and 23.08.2022  
2.Minutes of the meeting of Department Council, Dept.of Economics,Dr.Janaki Ammal Campus, held on 01.09.2022  
3.letter from Head of the Department, Dept.of Economics dated 13.09.2022 forwarding the modified scheme, Syllabus

**ORDER**

1. As per paper read(1) above, revised Scheme, Syllabus and Model Question Papers of the M A Economics programme (CBCSS) were implemented w.e.f 2020 admission and its modifications were implemented w.e.f 2021 admission, in the Department of Economics, Dr.Janaki Ammal Campus, Thalassery.
2. As per paper read(2) above, the Department Council, Dept. of Economics, held on 01.09.2021 resolved to introduce Open Elective Course 'Health Economics' in III semester by changing its Course Code from MAECO04O01 to MAECO03O01 and to drop the Elective Course 'MAECO03E05-Agricultural Economics' to incorporate the Open Elective Course in the III semester. Further resolved to introduce the Elective Course 'Databases on the Indian Economy and Basic Computational Techniques for Data Analysis' in IV semester by changing its code from MAECO03E12 to MAECO04E16.
3. Accordingly, the Head, Department of Economics, submitted the modified Scheme, Syllabus and model question papers of M A Economics programme(CBCSS), for implementation w.e.f 2021 admission, as per paper read (3) above.
4. The Vice Chancellor, after considering the matter in detail, and in exercise of the powers of the Academic Council conferred under section 11(I) of KU Act 1996 accorded sanction to implement modified Scheme and Syllabus M A Economic programme (CBCSS) at the Department of Economics, Dr.Janaki Ammal Campus, Palayad, Thalassery, w.e.f 2021 admission, as detailed in para (2) above, and to report to the Academic Council.
5. Modified Scheme, Syllabus and Model question paper for M A Economics programme(CBCSS) w.e.f 2021 admission in the University Department, is appended and uploaded in the University website. (www.kannuruniversity.ac.in)
6. The U.Os read (1) above, stands modified to this extent.

Orders are issued accordingly.

sd/-  
**BALACHANDRAN V K**  
**DEPUTY REGISTRAR (ACAD)**  
For REGISTRAR

To: The Head,Department of Economics,Dr. Janaki Ammal Campus,Palayad, Thalassery

- Copy To: 1.PS to VC/PA to PVC/PA to R  
2.The Examination Branch(through PA to CE)  
3.The Web Manager(for uploading in the website)  
4.SF/DF/FC



Forwarded / By Order  
  
SECTION OFFICER

# Learning Outcomes-based Curriculum Framework (LOCF) for Post-graduate Programme



Name of the Programme:

**M.A. ECONOMICS**

(Syllabus effective from 2021 Admission)



**KANNUR UNIVERSITY**  
**DEPARTMENT OF ECONOMICS**  
**Choice Based Credit Semester System (CBCSS)**  
**2021**



**KANNUR UNIVERSITY**  
**Syllabus for MA Economics**  
**M.A. Economics**

SL. NO	CONTENTS	PAGE NO.
I	About the Department	3
II	Introduction to CBCSS	3-4
III	Scope –Definitions	4-5
IV	Graduate Attributes	5-6
V	Programme Objectives (POs)	6
VI	Programme Outcomes (POs)	7
VII	Programme Specific Outcomes (PSOs)	7
VIII	M.A. Economics Programme Details	8
IX	Programme Structure	9-13
X	Eligibility for Admissions Assessment of Students' Performance	13
XI	Scheme of Examination Guidelines for the Award of Internal Assessment Marks Pass Percentage & Promotion Criteria Semester to Semester Progression	13-14
XII	Span Period	14
XIII	Conversion of Marks into Grades Grade Points CGPA Calculation Division of Degree into Classes	14-15
XIV	Attendance Requirement	15
XV	Course Wise Content Details for M.A.Economics Programme	15-74
XVI	Model Question Paper	75-105

## **I. ABOUT THE DEPARTMENT**

The Department of Economics (initially constituted under the title Department of Applied Economics) under the School of Development Studies was established in the year 2001, is recognised as a centre of excellence in the field of higher education in economics. The department offers an active and stimulating research environment for postgraduate and research students. The department is manpowered with faculty members who are charged with multi disciplinary background required for enabling the students to acquire skills in various branches of economics. Currently the department has four faculty members .The department is also enriched by the expertise lectures offered by distinguished professors from various nationally reputed institutions. At present, department offers two academic programmes.

1. M.A in Economics

2. Ph.D in Economics

The department has released 17 batches of M.A Applied Economics students and few Ph. D degree holders and most of them have secured good and covetable placement in public and private sector establishments. The Department of Economics is proactively engaging multiple and multi-dimensional research projects that cover social and village welfare, health care, education, water and energy management, and conservation, among others. The Department of Economics, since its inception has been organizing national seminars annually and also conducts workshops, discussions, and symposiums with the active participation of faculty and students involving academicians and experts in the concerned areas. Theses academic discussions and discourses will enable the department to nurture and emerge as the most reputed post graduate study and research centre in India.

## **II. INTRODUCTION TO CBCSS (CHOICE BASED CREDIT SEMESTER SYSTEM)**

The Department of Economics has introduced Choice Based Credit and Semester System (CBCSS) from 2010 onwards offering two years four semesters programme. All the permanent and contract teachers of the department shall be the members of the Department Council. The scheme and syllabus of M .A. Applied Economics Programme was prepared by the Department Council with the

Head of the Department as chairman and all the faculty members as its member. The syllabus approved by the curricular and the academic council was introduced in the 2010 Admission. The course structure related to the number of credits and the pattern of core course and elective course were as per the regulations of CBCSS implemented in the University for the University Departments. The syllabus of the Department was far advanced than the syllabus recommended for the colleges in terms of number of papers and its coverage.

### **III.SCOPE - DEFINITIONS**

The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective/minor or skill-based courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Grading system provides uniformity in the evaluation and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations which enables the student to move across institutions of higher learning. The uniformity in evaluation system also enables the potential employers in assessing the performance of the candidates.

Definitions: (i) 'Academic Programme' means an entire course of study comprising its programme structure, course details, evaluation schemes etc. designed to be taught and evaluated in a teaching Department/Centre or jointly under more than one such Department/ Centre.

(ii) 'Course' means a segment of a subject that is part of an Academic Programme.

(iii) 'Programme Structure' means a list of courses (Core, Elective, Open Elective) that makes up an Academic Programme, specifying the syllabus, Credits, hours of teaching, evaluation and examination schemes, minimum number of credits required for successful completion of the programme etc. prepared in conformity to University Rules, eligibility criteria for admission.

(iv) 'Core Course' means a course that a student admitted to a particular programme must successfully complete to receive the degree and which cannot be substituted by any other course.

(v) 'Elective Course' means an optional course to be selected by a student out of such courses offered in the same or any other Department/Centre.

(vi) 'Open Elective' means an elective course which is available for students of all programmes, including students of same department. Students of other Department will opt these

courses subject to fulfilling of eligibility of criteria as laid down by the Department offering the course.

(vii) 'Credit' means the value assigned to a course which indicates the level of instruction; One-hour lecture per week equals.

(viii) 'SGPA' means Semester Grade Point Average calculated for individual semester.

(ix) 'CGPA' is Cumulative Grade Points Average calculated for all courses completed by the students at any point of time. CGPA is calculated each year for both the semesters clubbed together.

(x) 'Grand CGPA' is calculated in the last year of the course by clubbing together of CGPA of two years, i.e., four semesters. Grand CGPA is being given in Transcript form. To benefit the student a formula for conversation of Grand CGPA into %age marks is given in the Transcript.

#### **IV.GRADUATE ATTRIBUTES**

Graduate attributes can be understood as the qualities, values, skills and skills that a particular university sets out to inculcate and develop among its students. These attributes are the stated objectives for equipping students to work in a chosen area and become critical and responsible citizens, contributing to the social and economic wellbeing of society. The development of graduate attributes is complex, requiring an institutional commitment across the board if the process is to succeed. The Graduate Attributes of Kannur University will sought to be actualized in terms of the framing of course curricula, learning outcomes, admission criteria and other related administrative regulations of the University.

#### **GRADUATE ATTRIBUTE 1 - SCHOLARSHIP**

**KANNUR UNIVERSITY** graduates will be able inquire critically into their area of study, while being aware of changing state of knowledge both in their own chosen discipline as well as related disciplines.

**KANNUR UNIVERSITY** graduates will have the ability to actively engage in the generation of innovative and relevant knowledge and understanding through inquiry, critique and synthesis going beyond their discipline of specialization.

## **GRADUATE ATTRIBUTE 2 - CRITICAL CITIZENSHIP AND THE SOCIAL GOOD**

**KANNUR UNIVERSITY** graduates will be engaged, committed and accountable agents of social good. They must aspire to contribute to social justice and environmental sustainability, appreciative of the complexity of historical contexts and societal conditions through their roles as professionals and members of local and global communities.

**KANNUR UNIVERSITY** graduates will be committed to furthering gender and social equality and empathetically engage with all forms of difference including, conflicting intellectual traditions, religious and cultural practices, language, region and nationality.

## **GRADUATE ATTRIBUTE 3 - LIFELONG LEARNING**

**KANNUR UNIVERSITY** graduates will be Lifelong Learners, committed to and capable of continuous collaborative and individual learning and critical reflection for the purpose of furthering their understanding of the world and their place in it.

This can be assessed, evaluated and monitored through the semester examination, extension and outreach activities, success in national level examination, quality of publications, students participation in various activities of the campus and off campus and also through inter and intra university programme.

## **V. PROGRAMME OBJECTIVES (POs)**

1. To inculcate and develop aptitude to integrate economic theory and practices of broad development aspects of international and national economic policies and analysis of different sectors.
2. To train students to gain knowledge in quantitative and econometric tools to handle large economic data and carry out data analysis of real life economic issues.
3. To teach a wide range of knowledge in current economic issues and gaining analytical skills, including problem-solving, project work and presentation so as enable students to take prominent roles in a wide spectrum of employment and research.

## **VI. PROGRAMME OUTCOMES (POs)**

1. Demonstrate a degree of mastery, at a level higher than the requirements in the appropriate master's program, over the area of the specialization of the program.
2. Carry out research independently and/or jointly in disciplinary or interdisciplinary Areas of Economics.
3. Write and present a substantial report/document on issues or problems of concern to the program.
4. Demonstrate the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.
5. Get wide range of job opportunities in industry as well as in government sector.

## **VII. PROGRAMME SPECIFIC OUTCOMES (PSOs)**

**PSO1:** A sound knowledge in the advanced economic theory and its application.

**PSO2:** An in-depth knowledge in the fields like agricultural Economics, financial market, environmental and natural resource management, development economics, international trade, econometrics, mathematical economics etc. and grab research openings in govt. funded national and international research institutions.

**PSO3:** Demonstrate a sound potential and ambience for a variety of challenging careers through Innovation in teaching and research.

**PSO4.** Mastery over mathematical and quantitative techniques commonly used in economics research and also in the field of corporate business and policy applications.

**PSO5:** Attain a competitive edge in the State and Central Service examinations where the subject content of economics dominates in the selection process.



## VIII. M.A.ECONOMICS PROGRAMME DETAILS

M.A Economics programme is a two-year course divided into four-semester. A student is required to complete 80 credits for the completion of course and the award of degree. This post-graduate program incorporates advanced knowledge in economics discipline, adequate skills and knowledge of computing and data-based decision making, and ability to work on multi/interdisciplinary problems. These can be attained in this program through six curricular components as,

- Disciplinary Core
- Computing Hard Core
- Multi/Inter-Disciplinary Soft Core/Open/Mooc Courses
- Electives
- Project
- Viva

Credit Distribution of the Programme is:

Credit Distribution					
Type	Credits	Credits			
		Sem I	Sem II	Sem III	Sem IV
Core course	28	12	4	8	4
Computing Hard Core	8	4		4	
Multi-disciplinary/Inter disciplinary/soft/Mooc/online course	4			4	
Electives	28		12	4	12
Projects	6				6
Viva	2				2
<b>Total Credit</b>	<b>76</b>	<b>16</b>	<b>16</b>	<b>20</b>	<b>24</b>

7 Electives are chosen by the student from among a list of elective courses offered by the Department and Students have to undertake one Multi-disciplinary/Inter disciplinary soft Core courses offered by other Departments or MOOC courses under Swayam. One project have to be completed in this two year programme, a 6-credit project in the fourth semester. A semester may consist of 20 weeks of Activities. The number of teaching weeks shall be 15-16 weeks.

## IX PROGRAMME STRUCTURE

The distribution of the courses over the four semesters of the PG program can be,

### Semester I

Course Code	Course Title	Core/ Elective	Credit	Instructional hours /week	Internal Marks	End Sem. Marks	Total
MAECO01C01	Paper 1. Micro- Economic Theory	Core course	4	4	40	60	100
MAECO01C02	Paper 2. Macro- Economic Theory	Core course	4	4	40	60	100
MAECO01C03	Paper3. Development Issues of Indian Economy- With special reference to Kerala	Core course	4	4	40	60	100
MAECO01C04	Paper4. Quantitative Techniques for Economic Analysis	Computing Hard Core	4	4	40	60	100
		<b>Total</b>	<b>16</b>	<b>16</b>	<b>160</b>	<b>240</b>	<b>400</b>

### Semester II

Course Code	Course Title	Core/ Elective	Credit	Instructional hours /week	Internal Marks	End Sem. Marks	Total
MAECO02C05	Paper 5. International Economics	Core course	4	4	40	60	100
MAECO02E01	Paper 6. Research Methodology	Elective course	4	4	40	60	100
MAECO02E02	Paper 7.Public Economics	Elective course	4	4	40	60	100
MAECO02E03	Paper 8. Mathematical Economics	Elective course	4	4	40	60	100
		<b>Total</b>	<b>16</b>	<b>16</b>	<b>160</b>	<b>240</b>	<b>400</b>

<p><b>Two weeks to one month Internship- Research Institutions/Industry (Optional for interested students)</b></p>
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### Semester III

Course Code	Course Title	Core/ Elective	Credit	Instructional hours /week	Internal Marks	End Sem. Marks	Total
MAECO03C06	Paper 9. Environmental Economics	Core course	4	4	40	60	100
MAECO03C07	Paper 10. Political Economy	Core course	4	4	40	60	100
MAECO03C08	Paper11.Econometrics	Computing Hard Core	4	4	40	60	100
MAECO03E04	Paper 12. Population Studies	Elective course	4	4	40	60	100
MAECO03O01 - MAECO03O04 OR Any other	Paper 13. Multidisciplinary/Interdisciplinary soft core Courses/Mooc Course	Open Elective course	4	4	40	60	100
		<b>Total</b>	<b>20</b>	<b>20</b>	<b>200</b>	<b>300</b>	<b>500</b>

### Semester IV

Course Code	Course Title	Core/Elective	Credit	Instructional hours /week	Internal Marks	End Sem. Marks	Total
MAECO04C09	Paper 14. Financial Institutions and markets	Core course	4	4	40	60	100
MAECO04E06	Paper15. Economics of growth and development	Elective course	4	4	40	60	100
MAECO04E07	Paper16. Operations Research for Economic Analysis	Elective course	4	4	40	60	100
MAECO04E16	Paper 17. Databases on the Indian Economy and Basic Computational Techniques for Data Analysis	Elective course	4	4	40	60	100
MAECO04P01	Paper 18. Project	Core	6	6	-	100	100
MAECO04V01	Viva	Core	2		-	100	100
		<b>Total</b>	<b>24</b>	<b>22</b>	<b>160</b>	<b>440</b>	<b>600</b>

Total credits of four semesters = 76

Total Marks = 1900

## HARD CORE/ COMPULSORY COURSE

Sl. No	Course Code	Course Title	Credit	Instructional Hours/week
1	MAECO01C01	Micro- Economic Theory	4	4
2	MAECO01C02	Macro-Economic Theory	4	4
3	MAECO01C03	Development Issues of Indian Economy- With special reference to Kerala	4	4
4	MAECO01C04	Quantitative Techniques for Economic Analysis	4	4
5	MAECO02C05	International Economics	4	4
6	MAECO03C06	Environmental Economics	4	4
7	MAECO03C07	Political Economy	4	4
8	MAECO03C08	Econometrics	4	4
9	MAECO04C09	Financial Institutions and Markets	4	4
10	MAECO04P01	Project	6	6
11	MAECO04V01	Viva	2	
<b>Total Credit</b>			<b>44</b>	<b>42</b>

Selection of Elective Courses: 7 elective courses (28credits) are compulsory to complete this programme; a student may choose electives in semester II, III and IV from the lists of options being offered by the Department.

## ELECTIVE COURSES

Sl.No	Course Code	Course Title	Credit	Instructional Hours/week
1	MAECO02E01	Research Methodology	4	4
2	MAECO02E02	Public Economics	4	4
3	MAECO02E03	Mathematical Economics	4	4
4	MAECO03E04	Population Studies	4	4
5	MAECO03E05	Agricultural Economics	4	4
6	MAECO04E06	Economics of growth and development	4	4
7	MAECO04E07	Operations Research for Economic Analysis	4	4
8	MAECO02E08	Development of Economic Ideas	4	4

9	MAECO03E09	Computer Application in Economic Analysis	4	4
10	MAECO03E10	Applied Welfare Economics	4	4
11	MAECO03E11	Business Economics	4	4
12	MAECO04E12	Security Analysis and Portfolio Management	4	4
13	MAECO04E13	Project Formulation and Evaluation	4	4
14	MAECO04E14	Applied Econometrics	4	4
15	MAECO04E15	Behavioural Economics	4	4
16	MAECO04E16	Databases on the Indian Economy and Basic Computational Techniques for Data Analysis	4	4

Selection of Multi-Disciplinary/ Interdisciplinary soft core/MOOC/online Courses: 1 course (4 credit) is compulsory to complete this programme; a student may choose one course in each Semester from the lists of options being offered by other Department/MOOC/online courses offered under SWAYAM platform.

**MULTI-DISCIPLINARY/INTER-DISCIPLINARY SOFT CORE COURSES/ OPEN COURSES OFFERED IN THE DEPARTMENT**

Sl.No.	Course Code	Course Title	Instructional Hours/week	Credit
1	MAECO03 O 01	Health Economics	4	4
2	MAECO03 O 02	Gender Economics	4	4
3	MAECO03 O 03	Energy Economics	4	4
4	MAECO03 O 04	Transport economics	4	4

**MULTI-DISCIPLINARY/INTER-DISCIPLINARY SOFT CORE COURSES/MOOC  
/ONLINE COURSE OFFERED IN SWAYAM**

Teaching: The faculty of the Department is primarily responsible for organizing lecture/Practical/Tutorial work. The instructions related to tutorials are provided by the respective registering units under the overall guidance of the Department. Faculty from some other Departments and constituent colleges are also associated with lecture and tutorial work in the Department. There shall be 90 instructional days excluding examination in a semester.

**X. ELIGIBILITY FOR ADMISSIONS**

The academic eligibility for admission to M.A. Economics programme offered in the Department is any Bachelor's Degree with at least 50% of marks or equivalent grade in the aggregate. SC/ST students will be provided a relaxation of 5% in the eligibility of marks.

**RESERVATION**

As per government/university rules.

Admission to M.A Economics is purely on the basis of Entrance Examination. The Entrance Examination will be of 120 minutes duration for 100 marks. The questions for Entrance Examination are of objective multiple choices with 50% of questions from Economics, 25% from Statistics, 10% from Mathematics and 15% questions as General Awareness expecting from a graduate of a university. The syllabus of the Entrance Examination will be provided along with admission prospectus.

**XI. SCHEME OF EXAMINATION GUIDELINES FOR THE AWARD OF INTERNAL ASSESSMENT MARKS PASS PERCENTAGE & PROMOTION CRITERIA SEMESTER TO SEMESTER PROGRESSION**

- (i) English shall be the medium of instruction and examination.
- (ii) Examinations shall be conducted at the end of each Semester as per the Academic Calendar notified by the Kannur University.
- (iii) Examination/Evaluation: A student will be evaluated out of 100 marks during the course.
- (iv) There will be 12 theory papers in the four semester programme. In addition, there will be one open elective paper in semester III. Each theory paper will be examined out of 100 marks (40 for internal assessment and 60 for final examination at the end of each semester).

Evaluation of the students shall be done by the faculty member who teaches the course on the basis of Continuous Assessment and End Semester Examination. The proportion of the distribution of marks among End Semester and Continuous Assessment shall be 60-40.

<b>Split up of Marks under Choice Based Credit Semester System</b>		
<b>Internal Marks</b>		<b>Marks</b>
1	Mid Semester Exam	20
2	Seminar Presentation	20
3	Total	40
<b>End Semester External Marks</b>		60
<b>TOTAL</b>		<b>100</b>

## **XII. SPAN PERIOD**

No students shall be admitted as a candidate for the examination for any of the Years/Semesters after the lapse of 4 years from the date of admission to the first year of the M.A. Programme.

## **XIII. CONVERSION OF MARKS INTO GRADES GRADE POINTS CGPA CALCULATION**

### **DIVISION OF DEGREE INTO CLASSES**

An alphabetical grading system was adopted for the assessment of student's performance in the course. The grade is based on a 6 point scale. The following table gives the range of marks %, grade points and alphabetical grade.

Range of marks %	Grade points	Alphabetical grade
90-100	9	A+
80-89	8	A
70-79	7	B+
60-69	6	B
50-59	5	C
Below 50	0	F

A minimum of grade point 5 (Grade C) is needed for the successful completion of a course. Minimum credit to be fulfilled for the successful completion of M.A. Economics programme is 76 credits. Performance of a student at the end of each semester is indicated by the Grade Point Average (G P A) and is calculated by taking the weighted average of grade points of the course successfully completed.

The overall performance of a student is indicated by the Cumulative Grade Point Average (CGPA). The final Grade/mark Card issued at the end of the final semester issued by the university contain the details of all courses taken during the entire programme including those taken over and above the prescribed minimum credits for obtaining the degree. The final grade card shows the percentage of marks, CGPA (corrected to two decimal places) and the overall letter grade of a student for the entire programme. Once the valuation work is over the Pass Board Committee approves the results and the same will be submitted to the Vice Chancellor for approval. On getting the approval of the Vice Chancellor, the results will be declared. The result of the End Semester Examination is published within 30 days from the date of the last examination.

#### **XIV. ATTENDANCE REQUIREMENT**

**60%** Attendance is required in each semester to attend the end semester examination.

#### **XV. COURSE WISE CONTENT OF M.A ECONOMICS PROGRAMME**

The course consists of the core subjects and elective subjects as follows.



## MICROECONOMIC THEORY

### CORE COURSE

### COURSE CODE – MAECO01C01

**Aims and Objectives:** The course is proposed to give a decent understanding and base to the students in applying the ideas and techniques for microeconomics in the practical field. The expansive destinations of the course is to prepare the students themselves in a complete way with the different parts of the conventional Microeconomic hypothesis just as the most recent improvements in this field and the utilizations of speculations in investigating current monetary issues and to build up the capacity to orchestrate information . Likewise planned to familiarize the students in dynamic with regards to advertise association, intricacy, vulnerability and instructive asymmetry; give experiences into advancements in the regions of general balance and government assistance financial matters; and to prepare the students to apply microeconomic standards in the regions of trade and government assistance. The course is divided into four modules which cover recent developments of the theory of consumer behaviour, theory of production, theory of firm and institutions, product pricing and welfare economics.

### Learning Outcomes

1. The information on consumer conduct empowers the student in taking sane purchasing choices and furthermore help a firm to structure appropriate promoting systems.
2. The student gets outfitted with the information and aptitude in viable dynamic under unsure market circumstances.
3. The student comprehends the significance of time assignment and family the executives.
4. The student builds up the expertise for changing over specialized data into monetary connection among info and yield.
5. Develops expertise to decide the homogeneity/non-homogeneity of creation capacities and to assess the yield level for the given information level.

### Module-1

**Theory of Consumer Choice-1:** Risk and uncertainty in demand choices –measuring risk – risk aversion and risk lover – Neumann-Morgenstern method of constructing utility index – Friedman-Savage hypothesis – trade- off between risk and return – the investor’s choice problem: household portfolio decisions under conditions of uncertainty – reducing risks and uncertainty – the state preference theory- **Theory of Consumer Choice-II:** Recent developments in the theory of market demand: Attribute theory of demand– inter temporal choice of consumption – pragmatic approach to demand analysis – constant elasticity demand function – distributed lag models of demand – Nerlove’s model – Houthakker’s and Taylor’s model – linear expenditure systems.

### Essential Reading

Dominick Salvatore. 2003. *Microeconomics: Theory and Applications*. Oxford University Press.

Koutsiyannis, A (2013), *Modern Microeconomics*, Macmillan Press, London

### Supplementary Reading

Hal R. Varian. 2000. *Intermediate Microeconomics: A Modern Approach*. New Delhi: Affiliated East West Press.

## Module- 2

**Theory of Production & Cost:** Production function – types–Cobb- Douglas production function – CES production function – technical progress – equilibrium of the multi product firm –modern theories of cost- linear programming problem-input output analysis- **Imperfect Market Structure:** – collusive and non-collusive oligopoly models –Public policy towards oligopoly: Antitrust laws, predatory pricing, tying. Duopoly models- **Markets with asymmetric information:** market for ‘lemons’ – Markets signaling-adverse selection-moral hazard-screening-principal agent problem- the winner’s curse – efficiency wage theory.Economics of search - search cost - search and advertizing – **Essential Reading**

James M. Henderson and Richard E. Quandt. 2003. *Microeconomic Theory: A Mathematical Approach*. New Delhi: Tata McGraw-Hill Publishing Co. Ltd.

Robert S. Pindyck and Daniel L. Rubinfeld. 2003. *Microeconomics*. Prentice Hall of India.

Koutsiyannis, A (2013), *Modern Microeconomics*, Macmillan Press, London

### Supplementary Reading

Hal R. Varian. 2000. *Intermediate Microeconomics: A Modern Approach*. New Delhi: Affiliated East West Press.

## Module- 3

**Extension of the traditional theory of the firm:** Baumol’s theory of sales revenue maximization – Marris’ model of the managerial enterprise – Williamson’s model of managerial discretion – behavioural model of Cyert and March – theory of games – decision theory.

**Theory of product pricing:** Basic assumptions underlying the traditional theory of pricing – Hall and Hitch report and the ‘full cost’ pricing principle – the mark-up rule – Bain’s limit-pricing theory – Model of Sylos- Labini – Model of Franco Modigliani.

### Essential Reading

Robert Y. Awh. 1976. *Microeconomics: Theory and Applications*. John Wiley and Sons.

Koutsiyannis, A (2013), *Modern Microeconomics*, Macmillan Press, London

### Supplementary Reading

Robert H. Frank. 2000. *Microeconomics and Behaviour*. Irwin Mc. Graw Hill.

## Module- 4

**Theory of distribution:** Neoclassical approach to distribution- Marginal productivity theory: Product exhaustion theorem: Euler’s theorem and the ‘adding up’ controversy – Clark-Wicksteed-Walras product exhaustion theorem – Keynesian or Neo Keynesian theories of distribution or Alternative distribution theories: Kaldor- modified model of Pasinetti –Alternative widow’s cruse models- Classical theory of distribution-The Ricardian model – Marxian theory – Modern theory of distribution or post Keynesian theory of distribution-‘degree of monopoly’ by Kalecki.

**General equilibrium:** Interdependence in the economy – partial and general equilibrium –

Walrasian general equilibrium – two-factor, two-commodity, two-consumer general equilibrium model. – existence, uniqueness and stability of general equilibrium – Brouwer’s fixed point theorem.

**Welfare economics:**Criteria's of old social welfare economics- Pareto optimality- New welfare economics-Kaldor –Hicks compensation criteria-Scitovsky criteria-social welfare function- Bergson-Samuelson-Arrows impossibility theorem-Pigouvian welfare economics-point of bliss-theory of second best-Rawlsian concept of justice-Coase theorem

### **Essential Reading**

Hal R. Varian. 2000. *Intermediate Microeconomics: A Modern Approach*. New Delhi: Affiliated East West Press.

David M. Kreps. 2004. *Microeconomics for Managers*. London: W.W. Norton & Co.

William J. Baumol. 2000. *Economic Theory and Operations Analysis*. Prentice Hall of India Pvt.Ltd.

Koutsoyiannis A. 1979. *Modern Microeconomics*, Mac Millan.

G. C. Da Costa. 1992. *Value and Distribution in Neoclassical and Classical Systems*. Himalaya Publishing House, Second Edition.

### **Supplementary Reading**

Edwin Mansfield & Gary Yohe. 2004. *Microeconomics*. W.W.Norton & Co.

John P. Gould, Edward P. Lazear. 2003. *Microeconomic Theory*. Richard D. Irwin Inc.

Robert H. Frank. 2000. *Microeconomics and Behaviour*. Irwin Mc. Graw Hill.

## **MACROECONOMIC THEORY**

### **CORE COURSE**

#### **COURSE CODE – MAECO01C02**

### **Course Objective:**

The objective of the course is to introduce the underlying macroeconomic foundations of an economy. The course also will equip the students with theoretical underpinnings of the subject, adequately supplemented with empirics by giving special reference to Indian Economy.

### **Course Outcomes:**

1. Develop an understanding of how macroeconomics has evolved as a discipline.
2. To enable students to understand basic concepts of macroeconomics and its empirical performance.
3. Develop an understanding of how fiscal and monetary functions in an economy.

### **Module I: Introduction - Macroeconomic Measurement- Development of the Subject.**

- a. Measuring the Economy's Performance
- b. Overview of National Accounting - Methods of Income estimation - Environmental and Social Dimensions.
- c. Determination of output - Schools of macroeconomic thought- Classical, Keynesian Monetarist, New Classical, New Keynesian, Supply Side Economists, Real Business Cycle Theory and Structuralist School.

### **Essential Reading**

Brian Snowdon and Howard R Vane: *Modern Macroeconomics: Its Origin, Development and Current State*, 2005.

Richard T. Froyen. *Macroeconomics: Theories and Policies*, 10th Edition, 2013.  
Mankiw Gregory: *Macroeconomics*, 5th Edition, Worth Publishers, 2002.  
Rudiger Dornbusch and Stanley Fischer and Richard Startz: *Macroeconomics*, 13th Edition, 2018.  
Edmund S. Phelps: *Seven Schools of Macroeconomic Thought*. OUP

### **Supplementary Reading**

Eugene Diulio. *Theory and Problems of Macro Economics*. Singapore: Schaum's OutlineSeries.  
McGraw Hill Publishing Company  
Soumen Sikdar: *Principles of Macroeconomics*, 2nd Edition, 2011.  
Errol Dsouza: *Macroeconomics*, Pearson, 2009.  
Nicoli Nattrass & G. Visakh Varma: *Macroeconomics Simplified Understanding Keynesian and Neoclassical Macroeconomic Systems*, Sage 2014.

### **Module 2: Theories of Consumption and Investment**

- a. Consumption Function: Keynes Psychological Law and Kuznet's consumption puzzle, Fisher's inter-temporal Choice Model, Permanent Income Hypothesis, Life Cycle Hypothesis and Relative Income Hypothesis.
- b. Investment Function: Neo-Classical Theory of Investment, Stock Market and Tobin's q-ratio, Accelerator Theory of Investment (simple and flexible models), Keynesian IS-LM model and AD-AS models.

### **Essential Reading**

Richard T. Froyen. *Macroeconomics: Theories and Policies*, 10th Edition, 2013.  
Mankiw Gregory: *Macroeconomics*, 5th Edition, Worth Publishers, 2002.  
Rudiger Dornbusch and Stanley Fischer and Richard Startz: *Macroeconomics*, 13th Edition, 2018.  
Brian Snowdon and Howard R Vane: *Modern Macroeconomics: Its Origin, Development and Current State*, 2005.

### **Supplementary Reading**

Nicoli Nattrass & G. Visakh Varma: *Macroeconomics Simplified Understanding Keynesian and Neoclassical Macroeconomic Systems*, Sage 2014.  
Soumen Sikdar: *Principles of Macroeconomics*, 2nd Edition, 2011.  
Errol Dsouza: *Macroeconomics*, Pearson, 2009.  
Eugene Diulio. *Theory and Problems of Macro Economics*. Singapore: Schaum's OutlineSeries.  
McGraw Hill Publishing Company

### **Module 3: Post Keynesian developments**

- a. Inflationary gap, Demand Pull versus Cost Push inflation, the Phillips curve and Lucas Supply equation
- b. Real Business Cycle School and inter-temporal substitution of labour- Real Business Cycle theory, technology shocks- neutrality of money and flexibility of wages and prices- Real Business cycle view on great depression.
- c. Imperfect competition and price setting- Real rigidity- Co-ordination failure models- Real Non Walrasian Theories- Small Menu Cost model and Staggering of prices, implicit wage contract theory, efficiency wage theory- Insider- Outsider model.

### **Essential Reading**

Rosalind Levasic and Alexander Reibmann. *Macro Economics: An Introduction to Keynesian Neoclassical Controversies*. London: The Macmillan Press Ltd.

Richard T. Froyen. *Macroeconomics: Theories and Policies*, 10th Edition, 2013.

Mankiw Gregory: *Macroeconomics*, 5th Edition, Worth Publishers, 2002.

Brian Snowdon and Howard R Vane: *Modern Macroeconomics: Its Origin, Development and Current State*, 2005.

Rudiger Dornbusch and Stanley Fischer and Richard Startz: *Macroeconomics*, 13th Edition, 2018.

### **Supplementary Reading**

Eugene Diulio. *Theory and Problems of Macro Economics*. Singapore: Schaum's Outline Series. McGraw Hill Publishing Company

Nicoli Nattrass & G. Visakh Varma: *Macroeconomics Simplified Understanding Keynesian and Neoclassical Macroeconomic Systems*, Sage 2014.

Soumen Sikdar: *Principles of Macroeconomics*, 2nd Edition, 2011.

Errol Dsouza: *Macroeconomics*, Pearson, 2009.

### **Module 4: Monetary and Fiscal Policy in Open Economy Macroeconomics**

- a. Fiscal and Monetary Policy - Banking System, Supply of Money, and the Conduct of Monetary Policy
- b. Opening Up the Economy - Determination of the Aggregate Price Level - The Problem of Inflation - Economic Growth

### **Essential Reading**

Richard T. Froyen. *Macroeconomics: Theories and Policies*, 10th Edition, 2013.

Brian Snowdon and Howard R Vane: *Modern Macroeconomics: Its Origin, Development and Current State*, 2005.

Rudiger Dornbusch and Stanley Fischer and Richard Startz: *Macroeconomics*, 13th Edition, 2018.

Soumen Sikdar: *Principles of Macroeconomics*, 2nd Edition, 2011.

Errol Dsouza: *Macroeconomics*, Pearson, 2009.

Mankiw Gregory: *Macroeconomics*, 5th Edition, Worth Publishers, 2002.

### **Supplementary Reading**

Eugene Diulio. *Theory and Problems of Macro Economics*. Singapore: Schaum's Outline Series. McGraw Hill Publishing Company

Nicoli Nattrass & G. Visakh Varma: *Macroeconomics Simplified Understanding Keynesian and Neoclassical Macroeconomic Systems*, Sage 2014.

**DEVELOPMENT ISSUES OF INDIAN ECONOMY  
(WITH SPECIAL REFERENCE TO KERALA)**

**CORE COURSE**

**COURSE CODE – MAECO01C03**

**Objectives**

1. The course aims to provide a better orientation and a deeper understanding about the development issues of Indian economy with a special focus on Kerala.
2. It specifically targets to focus on issues like poverty, unemployment, inequality and regional economic integration and problems connected with agriculture industry, foreign trade and balance of payment.
3. The course also aims to impart a detailed profile about the government policy pertains to agriculture, industry and inclusive growth and development etc.

**Outcome**

1. Conceptual clarity on various dimensions of economic growth and development.
2. A deeper understanding about the vital development issues like poverty, unemployment, inequality etc. in India.
3. A critical understanding of changes, issues and policies with respect to development of Indian and Kerala Economy.

**Module-1**

Growth Vs Development: Concept, Measurement and Problems-basic need approach- Sustainable Development -Structural changes in Indian Economy since independence–debate on Market – Plan Socialism- Neo Liberalism- Washington Consensus -Structural adjustment Programme- Second Generation Reform-Demographic Changes : Population Statistics- Population policy - Poverty ,Unemployment and inequality-- Concepts and measurements, trend and approaches of Poverty – Amartya Sen. – Entitlement and standard of living approach –Capability approach to poverty – magnitude of unemployment-An assessment of poverty alleviation and employment generation programmes- Inequality–

**Essential Reading**

A P Thirlwall. 1999. *Growth and Development*. 6th Edition. Macmillan Press Ltd.

Vijay Joshi and IMD Little.1991 and 2001.*India's Economic Reforms*. New Delhi: OUP.

Nayyar Deepak. 2008. *Liberalization And Development: Collected Essays*. New Delhi: OUP.

Bhagavathi Jagadish. 1993. *India in Transition*. New Delhi: OUP.

BimalJalan: 1992. *Indian Economic Crisis: The Way Ahead*. New Delhi: OUP.

AmartyaSen. 1982. *Poverty and Famine: An Essay on Entitlement and Deprivation*. NewDelhi: OUP.

The Standard of Living: Tanner Lectures – CUP.1987 and 2002. *India Development and Participation*. New Delhi: OUP,

A Sen. 1973.*On economic inequality*. Oxford: Clanderon Press.

RBI (website: rbi.org). Database on Indian Economy

### Supplementary Reading

Acharya Shanker and Mohan Rakesh. 2011. *India's Economy: Performance and Challenges*. New Delhi :Oxford University Press.

Balakrishnan Pulpare. 2011. *Economic Growth in India, History and Prospects*. New Delhi: Oxford University Press.

Angrej Sing Rana. 2017. *Recent Advances in Indian Economy*. Delhi: Swastic Publication Limited.

Uma Kapila.2018. *Indian Economy Since Independence: A Comprehensive And Critical Analysis of India's Economy 1947-2018*.Academic Foundation.

Nilanjan Banik. 2015. *The Indian Economy: A Macro Economic Perspective*. Sage Publications.

Prankrishna Pal.2008. *Reforms and Structural Changes in India*.Deep and Deep Publication Pvt. Ltd.

Shivani Jaswal, Isha Jaswal, and Manisha Raj. 2012. *Structural Transformations of Indian Economy*. Lambert Academic Publishing.

Rama P Kanungo, Chris Rowley, and Anurag N. Banergee. 2018.*Changing the Indian Economy, Renewal, Reform and Revival*. copy right© Elsevier B.V.

Rabindra Kumar Misra. 2017. *Indian Economy: Past, Present and Future*. New Delhi: Avon Publications.

RBI *monthly bulletin*.

Government of India.*Economic Survey for various years*.

RBI.*Handbook of Statistics for various years*.

### Module-2

Agriculture & Industry –changing interrelations -terms of trade between Industry & Agriculture- Markets in agriculture -land and credit markets-New agricultural policies and agrarian crisis- WTO and Indian Agriculture–Revolution in agriculture- concepts of Food Security –Food Availability – National Food Security Mission- Industrial policy of 1991–organized and unorganized sectors – Privatization and Disinvestment- NITI Aayog-Recent developments -Industrial development in India- Rural development in India-Inclusive growth-micro finance-National Rural Employment Guarantee Programme (NREGP)- National Rural Health Mission(NRHM).

### Essential Reading

Robert, E B Lucas, and Gustar F Papanek. 1989.*Indian Economy: Recent Developments and Future Prospects*. New Delhi: OUP.

A D N Bajpai, S K Chaubey, N G Pendsc, and S K Shrivastava. 2007. *Emerging Trends in Indian Economy*. New Delhi: Atlantic Publishers & Distributors.

Basu, Kaushik. 2004. *India's emerging economy*. New Delhi: OUP.

Bimal Jalan. 2000. *India's Economic Policy Preparing for the 21st Century*. 1996. New Delhi:

Penguin.

Patnaik, Prabhat. 1988. *Time, Inflation And Growth: Some Macroeconomic Themes In An Indian Perspective (R.C. Dutt Lectures On Political Economy, 1984)*. Orient Longman.

S. S. Tarapore. 2000 and 2006. *Issues in Financial Sector Reforms*. New Delhi:UBS Publishers and Distributors Ltd.,

C. Ram manohar Reddy.2017. *Demonitization and Black Money*.Orient BlackSwan publication.

Tamal Bandyapadhyay .2017.*From Lahman to Demonetization: A Decade of Disruptions. Reforms and Misadventures*. Penguin Books India Pvt. Ltd.

### **Supplementary Reading**

Acharya Shanker and Mohan Rakesh. 2011. *India 's Economy: Performance and Challenges*. New Delhi:Oxford University Press.

A Vaidyanathan .2009.*Agricultural Growth in India*. New Delhi: Oxford University Press. AN Agarwal.2001.*Indian Economy: Problems of Development and Planning*. New Delhi: Wishwa Publication.

Angrej Sing Rana. 2017. *Recent Advances in Indian Economy*. Delhi: Swastic Publication Limited.

Uma Kapila.2018. *Indian Economy Since Independence: A Comprehensive And Critical Analysis of India 's Economy 1947-2018*.Academic Foundation.

Nilanjan Banik. 2015. *The Indian Economy: A Macro Economic Perspective*. Sage Publications.

### **Module 3**

India & Global Economy –India's share in global trade- BOP position and problems of India-Capital Account Convertibility -Balance of Trade (Export and Import) – Foreign Trade policy-Impact on Domestic Money Supply – Inflation-Debate on WPI vs. CPI– Impact of Demonetization on Indian economy-regional economic integration and Indian Economy.

### **Essential Reading**

Robert, E B Lucas, and Gustar F Papanek. 1989.*Indian Economy: Recent Developments and Future Prospects*. New Delhi: OUP..

Basu, Kaushik. 2004. *India 's emerging economy*. New Delhi: OUP..

S. S. Tarapore. 2000 and 2006.*Issues in Financial Sector Reforms*. New Delhi:UBS Publishers and Distributors Ltd.,

C. Ram manohar Reddy.2017. *Demonitization and Black Money*.Orient BlackSwan publication.

Tamal Bandyapadhyay .2017.*From Lahman to Demonetization: A Decade of Disruptions. Reforms and Misadventures*. Penguin Books India Pvt. Ltd.

### **Supplementary Reading**

Janakarajan S, Venktachalam L and Maria Saleth R.2015.*Indian Economy in Transition: Essays in Honour of C.T Kurien*. Sage Publication.

Shivani Jaswal, Isha Jaswal, and Manisha Raj. 2012. *Structural Transformations of Indian*



*Economy*. Lambert Academic Publishing.

Rama P Kanungo, Chris Rowley, and Anurag N. Banergee. 2018. *Changing the Indian Economy, Renewal, Reform and Revival*. copy right© Elsevier B.V.

Rabindra Kumar Misra. 2017. *Indian Economy: Past, Present and Future*. New Delhi: Avon Publications.

RBI *monthly bulletin*.

Government of India. *Economic Survey for various years*.

OECD *Economic Surveys-India*. 2017

Government of India. *NSSO reports-various rounds*. Ministry of Statistics and Programme Implementation

RBI. *Handbook of Statistics for various years*.

#### **Module-4**

A profile of Kerala Economy since its formation –Model of Development & Sustainability of the model–Structural changes in Kerala Economy– Demographic changes – ageing – health – migration – poverty- unemployment-transformation in labour culture –migrant labour in Kerala, social security of labour -Emerging issues– policies- land reforms -formation of SEZs--Kerala & WTO – Fisheries and Plantation sectors-land market in Kerala–People’s plan – role of Panchayat Raj – ICT and development-tourism-women empowerment-role of micro finance-Privatization and human capital formation- Kerala’s higher education- Environment Degradation- Fiscal Crisis.

#### **Essential Reading**

K.K George. 1993. *Limits to Kerala Model of Development: an analysis of fiscal crisis and its implications*. Trivandrum:CDS,

Parayil, Govindan. 2000. *Kerala: The Development Experience: Reflections On Sustainability And Replicability*. Zed Books.

Frank, Richard and T.M.Thomas Issac. 2000. *Local democracy and Development: people’s Plan for decentralized planning in Kerala*.

P. P. Pillai. 1994. *Kerala Economy Four Decades of Development*.

M A Oommen. 1993. *Essays on Kerala Economy*. Oxford & IBH Publishing Company.

B A Prakash. 1994. *Kerala Economy Problems and Prospects*. New Delhi: Sage Publications.

#### **Supplementary Reading**

B.A.Prakash. 2012. *Indian Economy since 1991*. New Delhi: Dorling Kindersly.

Government of Kerala. *Economic Review for various years*.

B.A. Prakash and Jerry Alwin 2018. *Kerala’s Economic Development Emerging Issue and Challenges*. New Delhi: Sage publications.

# QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

## CORE COURSE

### COURSE CODE – MAECO01C04

#### Course Objectives

This course is designed to provide knowledge, statistical and mathematical skills with respect to: matrix algebra, summary measures of central tendency and variation/dispersion; summary measures of correlations/association; probability and distributions. This course enables the students to develop the analytical and empirical skills related to various statistical tests necessary to conduct research.

#### Course Outcome

Students will gain knowledge and skills in handling economic data, analyzing and interpreting with the help of statistical and mathematical methods.

#### Module I

Matrices-Addition and Subtraction of matrices-Multiplication of matrices-Determinant of matrices-Inverse matrices-Rank of a matrix- Solving Linear equations with the inverse- Cramer's rule for matrix solutions – Solution of simultaneous equations using Cramer's Rule.

#### Essential Reading

David A Harville. 2001. *Matrix Algebra -Exercises and Solutions*, Springer, New York

Taro Yamane 1962 *Mathematics for Economists- An Elementary Survey*, Prenticehall

Bowers David.1984 *Statistics for Economics*. Macmillan.

Alpha C. Chiang and Kevin Wainwright. 2017. *Fundamental Methods of Mathematical Economics*. McGrawHill education.4<sup>th</sup> edition

D N Elhance, 2018 *Fundamentals of Statistics*, Kitab Mahal, New Delhi, revised edition

#### Supplementary Reading

Monga,G.S. 2003. *Mathematics and Statistics for Economists*. New Delhi : Vikas Publications.

A.H. Smith and W. A. Albrecht.1966 *Fundamental Concepts of Analysis*, Prentice Hall.

C.P.Simon and L.E. Blume.1994 *Mathematics for Economists*.WW Norton & Company

#### Module II

Probability theory- Random Variable- Concept of probability- Different approaches to probability - Theorems of Probability: Addition and Multiplication Theorem- Conditional Probability –Bayes' theorem- Random variables and Probability distribution, Mathematical expectation - Probability Distributions: Discrete and Continuous Distributions: Binomial, Poisson, Normal - Lognormal, Pareto and Normal distributions-properties and applications

#### Essential Reading

Murray R Spigel.1998.*Probability Theory*.Schaums Outline Series. Mcgraw hill

Murray R Spigel.1975. Theory and problems of Probability and Statistics Schaums Outline Series.Mcgraw hill

Gupta.S.P. 2012 *Statistical Methods*. New Delhi :Sulthan Chand and Sons.

#### Supplementary Reading

Damodar Gujarathi.2008. *Basic Econometrics*.5th edition.

Agarwal, Bharadwaj and Gupta. 1996. *Quantitative techniques in Economics*. Kalyani Publications.

Kothari.C.R.2013. *Quantitative techniques*. New Delhi: Vikas publishing house. third edition

### **Module III**

Population and Sample-sampling and sample designs-theoretical basis of sampling-methods of sampling- Statistic–Sampling Distribution and Standard Error-Central limit theorem-Distribution of Sample mean - Theory of Estimation: Point estimation and Interval estimation-Properties of good estimator.

#### **Essential Reading**

Willaim.G.Kochran.2007. *Sampling Techniques*.Wiley India.

McClave James T, P.George Benson and Terry Sincich. 2000. *Statistics for Business and Economics*. Prentice Hall.

Speigal.M. R and Stephan LJ. 2008. *Theory and Problems of Statistics, 4<sup>th</sup> edition*Schaum's Outline Series McGraw Hill

#### **Supplementary Reading**

Gupta.S.C.2000. *Fundamentals of Applied Statistics*. New Delhi: S.Chand.

Ajay.S.Gaur and Sanjay.S.Gaur. 2009. *Statistical Methods for Practice and Research*. Response Books.

### **Module IV**

Testing of hypothesis- Null and alternative hypothesis- Type I and Type II errors – Critical region –Level of significance-Power of test – Procedure of testing of hypothesis- test of goodness of fit - Tests of significance for attributes - Analysis of Variance techniques- F test and ANOVA –One-way and Two way classification

#### **Essential Reading**

Speigal.M. R. 2000. *Theory and problems of Statistics*. London: McGraw Hill.

Willaim.G.Kochran.2007. *Sampling Techniques*.Wiley India.

Ajay.S.Gaur and Sanjay.S.Gaur. 2009. *Statistical Methods for Practice and Research*. Response Books.

#### **Supplementary Reading**

Ralph B. D'Agostino and Michael A. Stephens,1986Goodness-of-fit techniques (eds). Marcel Dekker Inc.

Conover WJ. Practical Nonparametric Statistics,1998 3<sup>rd</sup> edition, New York: John Wiley and Sons.

Siegel and Castellan. 1988. "Nonparametric Statistics for the Behavioral Sciences," 2<sup>nd</sup> edition, New York: McGraw-Hill.

**INTERNATIONAL ECONOMICS**  
**CORE COURSE**  
**COURSE CODE – MAECO02C05**

**Course Objective**

The course aims to provide an understanding of the underlying premises of international trade and capital flows. It aims to focus on the trade policies and institutions shaping global trade and capital flows within a broader historical and theoretical context.

**Course Outcomes**

1. Equip the students the theoretical foundations of international trade and capital flows.
2. Develop an understanding of the functioning of the international trading apparatus.
3. Help to understand the functioning of the international monetary and financial system.

**Module 1: Evolution of International trade theories**

Trade theories - Absolute versus comparative advantage - opportunity cost - Basis and gains from trade - Offer curves - Terms of trade - Factors and income distribution- Heckscher-Ohlin (H-O) model - factor endowments - relationship between factor and commodity prices - factor price equalisation theorem - Specific factor -theorem - Factor intensity reversal - Empirical evidence on H-O model - the Leontief Paradox - Theory of imperfect competition -Monopolistic competition and trade - Intra industry trade - Measuring and models - Trade based on technological difference - product cycle model - Transportation costs, Environmental standards, industry location and international trade - International trade and growth of factors of production - Immiserising growth, Technical progress, trade and welfare.

**Essential Readings**

Dominic Salvatore. 2013. International Economics. John Wiley& Sons, New York.

Paul. R. Krugman, Maurice Obstfeld& Marc Melitz. 2015. International Economics. Pearson.

Robert C Feenstra & Alan M Taylor. 2008. International Economics. 2<sup>nd</sup> Edition, Worth Publishers, New York.

B O Sodersten and Geoffrey Reed. 2003.International Economics. London: Macmillan.

**Supplementary Reading**

Paul. R. Krugman. 1994. Rethinking international trade, MIT Press

Dominic Salvatore. Schaum's Outline Of International Economics. McGraw Hill.

**Module 2: International trade policies and instruments**

Trade restrictions - tariffs - partial and general equilibrium analysis of tariffs - Stolper Samuelson Theorem – Rybczynski theorem - Metzler paradox - theory of tariff structure - optimum tariff - quotas and other non tariff barriers - Protectionism and arguments for it - effects of trade restrictions in commodity and factor markets - Case for free trade - policies - negotiations - GATT, Tokyo and Uruguay rounds - Customs union - types, effects and benefits - trade integration and free trade areas - Trade and

development - terms of trade - export orientation versus import substitution - Trade and developing economies.

### **Essential Readings**

Paul. R. Krugman, Maurice Obstfeld & Marc Melitz. 2015. International Economics. Pearson.

Robert C Feenstra & Alan M Taylor. 2008. International Economics. 2<sup>nd</sup> Edition, Worth Publishers, New York.

Dominic Salvatore. 2013. International Economics. New York: John Wiley & Sons

B O Sodersten and Geoffrey Reed. 2003. International Economics. London: Macmillan.

Robert M Dunn & John H Mutti. 2004. International Economics. Routledge

### **Supplementary Reading**

Sunanda Sen. 2010. International Trade Theory and Policy: A Review of the Literature. Levy Economics Institute of Bard College Working Paper No 635. URL: [http://www.levyinstitute.org/pubs/wp\\_635.pdf](http://www.levyinstitute.org/pubs/wp_635.pdf)

Jagdish Bhagwati. 1964. "The Pure Theory of International Trade", Economic Journal, Vol. 74, pp. 1-78.

Paul. R. Krugman. 1994. Rethinking international trade, MIT Press

Jagdish Bhagwati. 1987. International trade: Selected readings, Second Edition, MIT Press.

### **Module 3: The Balance of Payments, Foreign Exchange Markets and Exchange Rates**

Accounting principles of BoP - Equilibrium and disequilibrium in BOP – Role of reserves – Concepts about payments adjustments – The foreign exchange market– fixed and flexible exchange rates – spot and forward markets, foreign exchange swaps, futures and options – speculation and arbitrage – Exchange rate determination - monetary policy

### **Essential Readings**

Dominic Salvatore. 2013. International Economics. John Wiley & Sons, New York.

Paul. R. Krugman, Maurice Obstfeld & Marc Melitz. 2015. International Economics. Pearson.

Robert C Feenstra & Alan M Taylor. 2008. International Economics. 2<sup>nd</sup> Edition, Worth Publishers, New York.

### **Supplementary Reading**

Martin Uribe & Stephanie Schmitt-Grohé. 2014. Open Economy Macroeconomics. URL:

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.1492&rep=rep1&type=pdf>

Rudiger Dornbusch and Stanley Fischer and Richard Startz: Macroeconomics, 13th Edition, 2018.

### **Module 4: International Monetary system and Institutions**

Evolution of the international monetary system - Gold standards - Bretton Woods - World Bank and the IMF - Open economy macroeconomics - flexible exchange rate system - Financial globalisation - capital flows and crises.

### **Essential Readings**

Paul. R. Krugman and Maurice Obstfeld. 2015. International Economics. Pearson.

Dominic Salvatore. 2013. International Economics. New York: John Wiley & Sons

B O Sodersten and Geoffrey Reed. 2003. International Economics. London: Macmillan.

Robert M Dunn & John H Mutti. 2004. International Economics. Routledge

### **Supplementary Reading**

Martin Uribe & Stephanie Schmitt-Grohé. 2014. Open Economy Macroeconomics. URL:  
<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.1492&rep=rep1&type=pdf>

Rudiger Dornbusch and Stanley Fischer and Richard Startz: Macroeconomics, 13th Edition, 2018.

Federich S Mishkin. 2014. The Economics of Money Banking and Financial Markets. 11<sup>th</sup> Edition, Pearsons.

## **RESEARCH METHODOLOGY**

### **ELECTIVE COURSE**

### **COURSE CODE – MAECO02E01**

### **Objectives**

The course aims to provide the students the fundamental edifice of social science research with broad spectrum of knowledge about the research process. The paper generate the capability and skill on the part of students to prepare independent research project proposals which enable them to undertake research studies in future and improve their academic skills and expertise by involving in research activities.

### **Outcome**

1. Good capability and skill on proper methodological foundations of social research.
2. An in-depth skill to collect data, analyze and interpret it by using appropriate methods.
3. Mastery in drafting research reports, tools and techniques and derive conclusions and policy implications on topics of societal relevance and economic significance.

### **Module I**

Meaning of research-type of research-applied and fundamental-analytical and descriptive-qualitative and quantitative-conceptual and empirical-research methods and research methodology-The relation b/w theory and research-approaches in social research- inductive and deductive methods--interpretive research-Qualitative and content analysis-ethnography and phenomenology-interdisciplinary research-objectivity and ethics in social science research.-Criteria of good research and problems encountered by researchers in India.

### **Essential Reading**

Deepak, Chawla, and Neenasondhi. 2016. *Research Methodology Concepts and Cases*. Noida: Vikas Publishing House Ltd.

Sharlene, Nagy HesseBiber. 2006 *The practice of qualitative research*. London: Sage Publishers

Howard, Lane, Bruce L. 2017 Berg. *Qualitative Research Methods for social research*. Pearson.

Ranjith, Kumar. 2014. *Research Methodology A step by Step guide*, London: Sage Publishers.

Kothari, C R. 1990. *Research Methodology, Methods and Techniques*. New Delhi: Wiley Eastern Ltd.

## **Supplementary Reading**

Wilkinson, and Bhandarkar. 2002. *Methodology and Techniques of Social Research*. Himalaya Publishers

Laxmi, Devi. 1997. *Encyclopedia of Social Science Research*. Anmol Publications.

## **Module II**

Selection and formulation of research problem-development of research hypothesis-survey of literature-research design-meaning and contents- types of research design-exploratory and formulative, descriptive and diagnostic, evaluation and experimental, historical and survey design-steps in the research process- Sample Selection-sampling methods-random, stratified, multistage, systematic, cluster, quota, judgement, convenient, purposive samples.

## **Essential Reading**

Francis, C Dane.2010 *Evaluating Research methodology for people who need to Read Research*.London: Sage Publishers

Deepak, Chawla, and Neenasondhi. 2016. *Research Methodology Concepts and Cases*. Noida: Vikas Publishing House Ltd

Howard, Lane, Bruce L Berg.2017 *Qualitative Research Methods for social research*. Pearson.

Goode, W J, and P F Hatt. 1952. *Methods in social Research*. New York: McGraw hill Book Company.

Young, Pauline. 1988. *Scientific social surveys and research*, New Delhi: Prentice Hall India Pvt.Ltd.

## **Supplementary Reading**

William, J Goode, and Paul, K Hatt.1981. *Methods in social Research*, McGraw- Hill.

Wilkinson, and Bhandarkar. 2002. *Methodology and Techniques of Social Research*. Himalaya Publishers

W Lawrence, Neuman. 2006. *Social Research Methods- Quantitative and Qualitative Approaches*. Pearson.

## **Module III**

Methods of data collection- sources of data- primary and secondary data- qualitative method of data collection- observation method—focus group method- case study method - personal interview method and projective techniques - secondary data collection method-benefits and drawbacks.

## **Essential Reading**

Ranjith, Kumar. 2014. *Research Methodology A step by Step guide*, London: Sage Publishers.

Deepak, Chawla, and Neenasondhi. 2016. *Research Methodology Concepts and Cases*. Noida: Vikas Publishing House Ltd.

Kothari, C R. 1990. *Research Methodology, Methods and Techniques*. New Delhi: Wiley Eastern Ltd.

Young, Pauline. 1988. *Scientific social surveys and research*, New Delhi: Prentice Hall India Pvt.Ltd.

## **Supplementary Reading**

*The MLA Handbook for Writers of Association of America.* 2009.

W Lawrence, Neuman. 2006. *Social Research Methods- Quantitative and Qualitative Approaches.* Pearson.

## **Module IV**

Sample survey- methods- interview methods- questionnaire method- constructing of questionnaire/interview schedule- criteria for questionnaire designing- physical characteristics of questionnaire- data analysis and techniques- hypothesis and testing- scaling- problems and techniques- writing of report-references and bibliography.

## **Essential Reading**

Kothari, C R. 1990. *Research Methodology, Methods and Techniques.* New Delhi: Wiley Eastern Ltd.

Estelle, M Philipps, and D S, Pugh. 1993 *How to get a Ph.D.* New Delhi: UBS publishers and Distributors Ltd.

Constantinos, N Phellas, Alice, Bloch, and Clive, Seale. 2011. *Structured methods, interviews, questionnaires and observation.*

Sharma, KVS. 2001. *Statistics made simple: Do it yourself.* Prentice Hall India Private Ltd.

G B, Singh. 2017. *Research Methodology with SPSS.* Jaipur: Paradise publishers.

## **Supplementary Reading**

Marc, Blaug. 1992. *The Methodology of Economics or How Economics Explain.* Cambridge University.

PS, Mohanakumar. 1998. *A Handbook on Research Methodology.* Kudavechoor : Right Publishers

## **PUBLIC ECONOMICS**

### **ELECTIVE COURSE**

### **COURSE CODE – MAECO02E02**

## **Course Objective**

The course intends to familiarize students about the rationale for and role of government intervention in economic activities and how the government makes economic decisions. Recent theoretical and empirical developments, especially in the Indian public economics scenario will be explored.

## **Module 1: Introduction - Government in Market Economy**

Market failure and government intervention - Role of state in Allocation, Distribution, Regulation and Stabilization. - Changing role of the state: Issues in a globalizing world with special emphasis on global public goods. • Macroeconomics of Public Finance: The interaction between fiscal and monetary policy and fiscal stabilization. • Public goods: pure and impure public goods. • Optimal provision of public goods – voting and public choice – preference revelation mechanisms – Lindahl and successors, free riding, mobility. • The theory of clubs and local public goods. • Public goods and the private cost of public goods- Pseudo- market mechanism for Preference Revelation.



## Essential Readings

Raghbendra Jha, 2010, Modern Public Economics, 2<sup>nd</sup> Edition, Routledge, Oxon.  
Joseph.E. Stiglitz. 2015. Economics of the Public Sector, W.W. Norton & Company, London.  
John Leach. 2004. A course in Public Economics. Cambridge.

## Supplementary Readings

Atkinson, A. and Stiglitz, J. (1980), Lectures in Public Economics, McGraw Hill, London.  
Charles Tiebout (1956): "A Pure Theory of Local Expenditures." JPE 64, 416-424.  
Coase (1974): The Lighthouse in Economics, Journal of Law and Economics, Vol. 17, No. 2. (Oct.1974), pp. 357-376  
Feldstein, Martin (2001) The Transformation of Public Economics Research: 1970-2000. URL:  
<https://www.nber.org/feldstein/publiceconomics.html>

## Module 2: Public Policy and Taxation

• Normative social choice theory – Arrow’s theorem – majority voting – The median voter model – representative democracy. • Positive social choice theory: The Leviathan hypothesis – rent – seeking – lobbying and interest groups. • The conflict between efficiency and equity - horizontal and vertical equity-welfare analysis with uncertainty. • Shifting and Incidence of Tax: The Partial and General Equilibrium Analysis- the Harberger model • Canons of taxation • Theory of Optimal Taxation. • Taxation and economic efficiency. • Issues related to tax policy in developing countries - Indian Tax System: An assessment • Practical Issues of Tax reforms in India • An introduction to MODVAT, CENVAT and Goods and Services Tax (GST)

## Essential Readings

Joseph.E. Stiglitz. 2015. Economics of the Public Sector, W.W. Norton & Company, London.  
Raghbendra Jha, 2010, Modern Public Economics, 2<sup>nd</sup> Edition, Routledge, Oxon.  
John Leach. 2004. A course in Public Economics. Cambridge  
Holley H Ulbrich. 2014. Public Finance in Theory and Practice. 2<sup>nd</sup> Edition, Routledge

## Supplementary Readings

Agno Sandmo (1976): Optimal Taxation: An Introduction to Literature, Journal of Public Economics, 6, pp 37-54.  
Alan Peacock (1979), The Economic Analysis of Governments, St. Martin Press, New York.  
Atkinson, A. and Stiglitz, J. (1980), Lectures in Public Economics, McGraw Hill, London.  
Auerbach, A., and M. Feldstein (1987), Handbook of Public Economics, Vol. 1 &2. North Holland, Amsterdam.  
Cullis, J. And Jones, P. (1998), Public Finance and Public Choice, 2<sup>nd</sup> Edition, Oxford University Press, Oxford.

## Module 3: Public Expenditure Theory & Public Debt

• Pure theory of public expenditure- Empirical evidence on public expenditure theories. • Public Sector Pricing- Pricing of Public Utilities. • Public expenditure management and control • Concept, measurement and magnitude of subsidies. • Social infrastructure and financing of human development. • Growth, nature and composition of public expenditure in India • Sustainability issues of Centre and State expenditure in India • Issues related to subsidies in India • Social Security and State level pension reforms in India • Measurement and macro-economic impact of deficits- alternative paradigms. • The concept of budget. • Fiscal deficit and interest rates: Analytical and empirical issues. • Public debt burden and intergenerational equity. • Issues related to public debt sustainability. • Trends and developments in Indian Fiscal Policy. • Recent experience

with stabilization functions of India government. • Fiscal Responsibility and Budget Management Act: An Evaluation

### **Essential Readings**

Raghubendra Jha, 2010, Modern Public Economics, 2<sup>nd</sup> Edition, Routledge, Oxon..

Joseph.E. Stiglitz. 2015. Economics of the Public Sector, W.W. Norton & Company, London.

John Leach. 2004. A course in Public Economics. Cambridge.

Richard A Musgrave & Puggy B Musgrave. 1989. Public Finance in Theory and Practice, McGraw Hill.

Richard E Wagner. 2019. Public Debt as a form of Public Finance. Cambridge University Press.

### **Supplementary Readings**

John Cullis, & Philip Jones. 2009. Public Finance and Public Choice, 2<sup>nd</sup> Edition, Oxford University Press, Oxford.

Gareth D. Myles 2012. Public Economics, Cambridge University Press, Cambridge.

David N Hyman. 2010. Public Finance: A Contemporary Application of Theory to Policy, Tenth Edition. South-Western, Cengage Learning

Richard W Tresh. 2014. Public Finance: A Normative Theory. 3<sup>rd</sup> Edition. Academic Press.

Paul A Samuelson. 1954. "The Pure Theory of Public Expenditure." Review of Economics and Statistics, 387-389.

Paul A Samuelson. 1955. A Diagrammatic Exposition of the Theory of Public Expenditures." Review of Economics and Statistics (Nov.)

### **Module 4: Fiscal Federalism**

• Theory of Fiscal Federalism: The decentralization theorem. • Economic efficiency issues in multilevel government. • Assignment issues in multilevel government. • Theory of intergovernmental transfers - Centre-State Financial relations in India - Constitutional provisions and various committee recommendations on sharing of revenue. • Fiscal Decentralization in India in the context of 73rd and 74th Constitutional Amendments. • Implication of recommendations of Finance Commission. • Centrally Sponsored Schemes and its implications for federalism. • Sub national fiscal reforms in India.

### **Essential Readings**

Harvey S. Rosen. 1995. Public Finance 4<sup>th</sup> Edition, Richard D. Irwin, Chicago.

Y, V Reddy & G.V Reddy. 2019. Indian Fiscal Federalism. OUP.

M Govinda Rao. 2009. Fiscal Federalism in India- Trends and Issues. In Shinichi Ichimura & Roy Bahl Eds. Decentralization Policies in Asian Development. World Scientific Publishing Company.

Amaresh Bagchi. 2005. Readings in Public Finance, Oxford University Press, New Delhi.

Sudipto Mundle and Govind Rao. 1997. Public Expenditure in India: Trends & Issues in Public Finance-Policy Issues for India (ed.) Sudipto Mundle. Calcutta: OUP.

D.N. Dwivedi. 1994. Reading in Indian Public Finance. New Delhi: Wiley Eastern Ltd.

### **Supplementary Reading**

Catriona Purfield. 2004. The Decentralization Dilemma in India. IMF Working Paper, No. WP/04/32.. URL: <https://www.imf.org/external/pubs/ft/wp/2004/wp0432.pdf>

Lekha Chakraborty. 2019. Indian Fiscal Federalism at the Crossroads: Some Reflections. Levy Economics Institute of Bard College. Working Paper No. 937. URL: [http://www.levyinstitute.org/pubs/wp\\_937.pdf](http://www.levyinstitute.org/pubs/wp_937.pdf)

# MATHEMATICAL ECONOMICS

## ELECTIVE COURSE

### COURSE CODE – MAECO02E03

#### Course Objectives

This course helps to develop a mathematical base to economic students in applying various theories and issues of economics in the practical field. This course gives a consolidated knowledge of various mathematical formulation of theories related to micro, macro and behavioral economics.

#### Course Outcomes

1. This course enables the students to develop the analytical and mathematical skills related to various economic relationships.
2. Students gain knowledge to integrate economic theories with mathematical techniques
3. Students will get rigorous training in mathematical computations essential for studying and analyzing current economic issues.

#### Module – 1 (Review of concepts)

the concepts of set- mathematical relations and functions- higher order function of a single variable- function of more than two independent variables- Use of graphs and diagrams- Differential Calculus- limits-derivatives- basic rules- partial and total derivatives – Integral Calculus- integration by parts and integration by substitution- definite integral and indefinite integral.

#### Essential Reading

- Allen R.G.D. 1956. *Mathematical Economics*. Macmillan Co. Ltd.  
Allen R.G.D. 1967. *Macroeconomic Theory*. Macmillan Co. Ltd.  
Birchenhall.C. and Grout.P. 1984. *Mathematics for Modern Economics*. Philip Alien. Oxford: Harness and Noble Books.  
J.M. Henderson and R.E.Quandt. 1980. *Microeconomic Theory a Mathematical Approach*. Me. Graw Hill International Ltd.

#### Supplementary Reading

- Edward T. Dowling, 2011. *Introduction to Mathematical Economics*. Schaum's Outline.  
Adam Ostaszewski and Kenneth Binmore, 1993. *Mathematics in Economics: Models and Methods*.

#### Module – II (Theory of Demand )

Maximization of utility - demand functions - Elasticity - Properties of demand functions - Slutsky equation - Direct and cross effects - Separable and additive utility functions - Homogeneous and homothetic utility functions - Indirect utility function - Duality in consumption - Roy's identity- Linear expenditure systems - Constant elasticity models – The problem of choice involving risk – Expected utility - Risk and insurance-

#### Essential Reading

- Krishna K.L. (ed.). 1997. *Econometric Applications in India*. New Delhi: Oxford University Press.

Amitabh Kundu, et. Al. 1976.*Input Output framework and Economic Analysis*.New Delhi: Centre for the study of Regional Development.  
David. F. Heithfield and Soren Wibe.1987. *Introduction to Cost and Production Function.*,Macmillan Education Ltd.

### **Supplementary Reading**

Michael Hoy. 2011. *Student's Solution Manual for Mathematics for Economics*.  
Akira Takayama. 1993. *Analytical Methods in Economics*.  
Michael D.Intriligator. 1971. *Mathematical Optimization and Economic Theory*.

### **Module –III (Theory of Production)**

Production function Cob-Douglas production function - CES production function - VES production function – Cost function: Derivation of cost as a function of output- Empirical cost function -.Input demand function

### **Essential Reading**

Yamane, Taro (1975), *Mathematics for Economists*, PHI, New Delhi.  
Allen, R.G.D.(1974), *Mathematical Analysis for Economists*, Macmillan Press, New Delhi. 3  
Gupta, S.C.(1993)  
Amitabh Kundu, et. Al. 1976.*Input Output framework and Economic Analysis*.New Delhi: Centre for the study of Regional Development.  
David. F. Heithfield and Soren Wibe.1987. *Introduction to Cost and Production Function.*,Macmillan Education Ltd.

### **Supplementary Reading**

Chiang, A.C.(1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.  
Handry, A.T.(1999), *Operations Research*, PHI, New Delhi.  
Layard, P.R.G. and Walters, A.W.(1978), *Microeconomic Theory*, McGrawHill, London.  
Stigler, G.(1996), *Theory of Price*, PHI, New Delhi.  
Varian, H.R. (2000), *Microeconomic Analysis*, W.W. Norton, New York.

### **Module - IV (Mathematical models related to Market and Behavioral Economics)**

Perfect Competition- Monopoly and profit maximisation - Price discrimination - Taxation and monopoly – Multiple plant and multiple product monopoly - Revenue maximization monopoly - monopoly in the input market – Oligopoly-duopoly market- Cournot- Nash model – Stackelberg model - Sweezy model -Theory of games: Two person zero-sum game - Pure and mixed strategy – Saddle point theorem- Behavioral economics-concepts - Bounded rationality decision making model – models of prospect and nudge theory

### **Essential Reading**

J.M. Henderson and R.E.Quandt.1980.*Microeconomic Theory a Mathematical Approach*.Me. Graw Hill International Ltd.  
Sydsaeter, Knut and Peter Hammond.2002.*Essential Mathematics for Economic Analysis*.England : Prentice Hall: Harlow.  
Eugene Silberberg.1990. *The Structure of Economics a Mathematical Analysis* (Second Edition). Mc Graw Hill International (ed).

Cunningham, Lawrence A. 2002. *Behavioral Finance and Investor Governance*. Washington & Lee Law Review.  
Diamond, Peter; Vartiainen, Hannu (2012). *Behavioral Economics and Its Applications*. Princeton University Press.  
Hens, Thorsten; Bachmann, Kremena (2008). *Behavioural Finance for Private Banking*. Wiley Finance Series.

### **Supplementary Reading**

Alpha C . Chiang- Kevin Wainwright. 2005. *Fundamental Methods of Mathematical Economics*.  
Lawrence E. Blume, Carl P. Simon .1994. *Mathematics for Economists*.  
Shleifer, Andrei (1999). *Inefficient Markets: An Introduction to Behavioral Finance*. New York: Oxford University Press.  
Thaler, Richard H (2016). *"Behavioral Economics: Past, Present, and Future"*. American Economic Review.  
Thaler, Richard H.; Mullainathan, Sendhil (2008). *"Behavioral Economics"*. In David R. Henderson (ed.). *Concise Encyclopedia of Economics* (2nd ed.).  
Hogarth, R. M.; Reder, M. W. (1987). *Rational Choice: The Contrast between Economics and Psychology*. Chicago: University of Chicago Press.  
Kahneman, Daniel; Tversky, Amos (1979). *"Prospect Theory: An Analysis of Decision under Risk"*. *Econometrica*.

## **ENVIRONMENTAL ECONOMICS**

### **CORE COURSE**

#### **COURSE CODE – MAECO03C06**

### **Objectives**

The objective of the course is to make students to learn about application of economic theories and tools to the environmental problems and find solution. The paper alerts the students about the burgeoning environmental pollution, depletion of natural resources and also threat to the sustainable development as part of development programmes. It also familiarizes the environmental impact assessment tools and techniques. The paper provides about major natural disasters and a sustainable approach to fight against these disasters and provides better understandings of biodiversity and markets for natural resources. To paper also aims to apply environmental economics for finding solutions to serious environmental problems at different scales including, regional, national and global.

### **Outcome**

The paper enables the students in acquiring the basic skills and knowledge required in the natural resource management of a country for a sustainable existence and also eliciting rational solutions for solving burgeoning environmental problems.

## Module I: Economy and the Environment

The Economy and environment – inter linkages between the economy and environment- material balance model and the law of thermo dynamics- environmental ethics- - Economics of sustainable development- key aspects of sustainable development-indicators of sustainability- approaches to sustainable development-Hart wick, Solow approach, safe minimum standard-Daly's operational principle- environmental kuznet curve-environmental accounting.

### Essential Reading

Tom, Tietan Berg. 2004. *Environmental and Natural resource Economics*. Pearson.  
Prakash, Vohra, and Ragesh, Mehta. 2007. *Environmental Economics*. New Delhi: Common wealth publishers.  
Charles, D Kolstad. 2000. *Environmental Economics*. Oxford University Press.  
Nick, Hanley, Jason, F Shogren and Ben, White. 2002. *Environmental Economics in Theory and Practice*. Newyork: Palgrave  
Eban, S Goodstein. 2002. *Economics and the environment*. John wiley and sons.  
Misra, SP, and Pandey, S N. 2009.*Essential Environmental Studies*. Ane Book Pvt.Ltd  
K G Mailer and J Vincent: Handbook of Environmental Economics, Elsevier (2005)

### Supplementary Reading

Barbier, Edward B. □1998*The Economics of Environment and Development*. Selected Essays, Edward Elgar, Cheltenham  
Tom, Tietenberg. □2011*Environmental and Natural Resource Economics*. New York: HarperCollins Publishers.  
Ian, Goldin, and L, □1995Alan Winters.*The Economics of Sustainable Development*, New York: Cambridge University Press .

## Module II: Environmental Problems

Water conservation, rainwater harvesting and watershed management –water resources in India- issues and concerns – water ethics-Climate change and Agriculture development –climate change- issues and approach- Disaster management –major disasters-floods, earthquakes, cyclones, landslides-mitigation measures.

### Essential Reading

Subashini, Muthukrishanan. 2015. *Environmental Economics*, PHI learning Pvt.Ltd.  
Tom, Tietan Berg. 2004. *Environmental and Natural resource Economics*. Pearson.  
Prakash, Vohra, and Ragesh, Mehta. 2007. *Environmental Economics*. New Delhi: Common wealth publishers.  
Nick, Hanley, Jason, F Shogren and Ben, White. 2002. *Environmental Economics in Theory and Practice*. Newyork: Palgrave  
Misra, SP, and Pandey, S N. 2009.*Essential Environmental Studies*. Ane Book Pvt.Ltd  
Russel, S, Clifford. 2001. *Applying Economics to environment*. Oxford University Press.  
Charles, D Kolstad. 2000. *Environmental Economics*. Oxford University Press.  
K G Mailer and J Vincent: Handbook of Environmental Economics, Elsevier (2005)

### Supplementary Reading

Barbier, Edward B. □1998*The Economics of Environment and Development*. Selected Essays, Edward Elgar, Cheltenham.  
Stern, and Coria. □ 2011. *Policy Instruments for Environmental and Resource Management*. Francis and Taylor.

### **Module III: Natural Resource Management**

Resource taxonomy- Economics of natural resources –managing renewable and non renewable resources- Environment Impact Assessment (EIA)-Environmental Planning and Management- Biodiversity-magnitude and levels- value of bio diversity and threats to biodiversity- Methods of economic valuation of environment-market based methods-surrogate market methods- simulated market methods- Limitations of environmental valuations.

#### **Essential Reading**

Tom, Tietan Berg. 2004. *Environmental and Natural resource Economics*. Pearson.  
Aravindkumar. 2004. *Environment and Health*. New Delhi :APH Publishing Company.  
Prakash, Vohra, and Ragesh, Mehta. 2007. *Environmental Economics*. New Delhi: Common wealth publishers.  
Misra, SP, and Pandey, S N. 2009.*Essential Environmental Studies*. Ane Book Pvt.Ltd  
Saxeena, H M. 2006. *Environmental Studies*.RawatPubliations.  
Eban, S Goodstein. 2002. *Economics and the environment*. John wiley and sons.  
Nick, Hanley, Jason, F Shogren and Ben, White. 2002. *Environmental Economics in Theory and Pra ctice*, Newyork: Palgrave  
Subashini, Muthukrishanan. 2015. *Environmental Economics*, PHI learning Pvt.Ltd. ctice.  
9K G Mailer and J Vincent: Handbook of Environmental Economics, Elsevier (2005)

#### **Supplementary Reading**

David, Pearce, and Dominic, □1994.Moran.*The Economic Value of Biodiversity*, London: Earth Scan Publications Ltd.  
Stern, and Coria. □ 2011. *Policy Instruments for Environmental and Resource Management*. Francis and Taylor.

### **Module IV. Market Failure and Internalisation of Externalities**

Market failure and environmental goods-approaches and causes of market failure- market failure and externality- attributes of externality- internalizing externalities, coase theorem-environment as public good-private good- -impure public goods-tragedy of commons-property rights- Instrument for environmental protection- command and control, market based new tools-education, information and voluntary measures-Direct Economic instruments-Pollution fee and polluter pay principle, emission trading rights or tradable market permits, Deposit refund system, performance based , liability- Indirect economic instruments-taxes and subsidies etc

#### **Essential Reading (IVth Chapter)**

Tom, Tietan Berg. 2004. *Environmental and Natural resource Economics*. Pearson.  
Aravindkumar. 2004. *Environment and Health*. New Delhi :APH Publishing Company.  
Prakash, Vohra, and Ragesh, Mehta. 2007. *Environmental Economics*. New Delhi: Common wealth publishers.  
Misra, SP, and Pandey, S N. 2009.*Essential Environmental Studies*. Ane Book Pvt.Ltd  
Saxeena, H M. 2006. *Environmental Studies*.RawatPubliations.  
Eban, S Goodstein. 2002. *Economics and the environment*. John wiley and sons.  
Nick, Hanley, Jason, F Shogren and Ben, White. 2002. *Environmental Economics in Theory and Pra ctice*, Newyork: Palgrave.

#### **Supplementary Reading**

Subashini, Muthukrishanan. 2015. *Environmental Economics*, PHI learning Pvt.Ltd.

K G Mailer and J Vincent: Handbook of Environmental Economics, Elsevier (2005)

Phaneuf and Requate: 2017. A Course in Environmental Economics: Theory, Policy and Practice, Cambridge University Press

Freeman, Herriges and Kling: 2014. The Measurement of Environmental and Resource Values: Theory and Methods, 3rd ed. RFF Press/Routledge .

**POLITICAL ECONOMY**  
**CORE COURSE**  
**COURSE CODE – MAECO03C07**

**Course Objective:**

The course aims to teach the fundamental concepts of Political Economy analysis in the MA programme by introducing the historical, political and social premises of the subject matter of contemporary economics. After providing a historical overview of the theories of value, distribution, state and markets the course looks at the rise of capitalism, crises and critiques of the capitalist system while exploring the Marxian and the radical versions of political economy.

**Course Outcomes:**

1. Develop an understanding of political economy approach for its analytical usefulness than mainstream economics
2. Develop conceptual clarity of the importance of history and relations of power.
3. Develop the capacity to understand and interpret the theories and apply them to economic problems.
4. Develop the capacity to comprehend and articulate perspectives through assignments.

**Brief description of modules**

**Module 1:** Introduction to Classical Political Economy – Historical Development & Definitions - Wealth, Value creation, Trade, State and the invisible hand

**Essential Readings:**

Ben Fine & Dimitris Milonakis. 2009. 'From Political Economy to Economics.' Chapters 1-4.

James A Caporaso & David P Levine. 1992. *Theories of Political Economy*. Introduction & Chapter 1-2

**Supplementary Reading**

Michael A Veseth & David N Balaam. 'Political Economy'. In Encyclopedia Britannica. URL: <https://www.britannica.com/topic/political-economy>

Vincent Mosco. Chapter 1 in 'The Political Economy of Communication'. URL: [https://au.sagepub.com/sites/default/files/upm-assets/26776\\_book\\_item\\_26776.pdf](https://au.sagepub.com/sites/default/files/upm-assets/26776_book_item_26776.pdf)

Robert L Heilbroner. 1999. *The worldly philosophers: The lives, times, and ideas of the great economic thinkers*. URL:

[http://starbooksfeaa.weebly.com/uploads/5/4/8/6/54869709/the\\_wordly\\_philosophers.pdf](http://starbooksfeaa.weebly.com/uploads/5/4/8/6/54869709/the_wordly_philosophers.pdf)



Hunt, E. K., & Lautzenheiser, M. 2011. *History of economic thought: A critical perspective*. 3rd ed. & Teachings from the Worldly Philosophy (55-157).

Amit Bhaduri. On the border of economic theory and history.

**Module 2:** Criticisms of Classical Political Economy – German Historical School – Rise of Capitalism - Marxian Political Economy - Commodity, Prices, Class, Property, Surplus value, Profit, Accumulation

**Essential Readings:**

Ben Fine & Dimitris Milonakis. 2009. 'From Political Economy to Economics.' Chapters 3-5.

James A Caporaso & David P Levine. 1992. *Theories of Political Economy*. Chapter 3.

Maurice Dobb. 2010. Theories of Value and Distribution Since Adam Smith: Ideology and Economic Theory. Chapter 6.

Immanuel Wallerstein. 1974. *The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis*. URL: <http://bev.berkeley.edu/ipe/readings/Wallerstein.pdf>

Keith Tribe. 1981. *Genologies of Capitalism*. The Macmillan Press.

Milton Friedman. 1962. *Capitalism and Freedom* pp. 1–55, 108–37, and 161–90.

**Supplementary Reading:**

Michael Heinrich. 2004. *An Introduction to the Three Volumes of Marx's Capital*.

URL: <http://digamo.free.fr/heinrich.pdf>

Jeff Diamanti, Andrew Pendakis & Imre Szeman. 2018. Chapter 69 in 'The Bloomsbury Companion to Marx'

David Harvey. 2010. *A Companion to Marx's Capital*

Louis Althusser and Etienne Balibar. 1968. *Reading Capital*. URL: <https://www.marxists.org/reference/archive/althusser/1968/reading-capital/index.htm>

R Luxemburg. 1913. *The Accumulation of Capital*. URL: <https://www.marxists.org/archive/luxemburg/1913/accumulation-capital/accumulation.pdf>

Hernando de Soto. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere else*.

**Module 3:** Marginal Revolution - Perfect Markets, State, Rationality, Individualism & Economic Growth – Institutions, Evolution and Economic History - Keynesian Political Economy – Economic Approach to Politics – Political Economy of Power, State and Justice

**Essential Readings:**

Ben Fine & Dimitris Milonakis. 2009. 'From Political Economy to Economics.' Chapters 8-9.

James A Caporaso & David P Levine. 1992. *Theories of Political Economy*. Chapter 6-9.

Allen Drazen. 2009. Chapter 1 in 'Political Economy of Macroeconomics'. URL: <https://www.jstor.org/stable/j.ctv346rwp>. Also <https://assets.press.princeton.edu/chapters/s6819.pdf>

David Harvey. 2005. *A Brief History of Neoliberalism*.

**Supplementary Reading:**

Maurice Dobb. 2010. Theories of Value and Distribution Since Adam Smith: Ideology and Economic Theory

Gary Becker. 1976. *The Economic Approach to Human Behavior*. Chapters 1, 8, 12, and 13.

Frederich Hayek. 1948. *Individualism and Economic Order*. Chapters 1, 2, 4, and 5

**Module 4:** Neoliberalism - Capitalist Crisis, Rise of Finance Capital - Financialisation

### **Essential Readings:**

Rodd Hill & Tony Myatt. 2010. *The Economics Anti-textbook: A critical thinker's guide to Microeconomics*. URL: <http://digamo.free.fr/antitext.pdf>

Immanuel Wallerstein. 1974. *The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis*. URL: <http://bev.berkeley.edu/ipe/readings/Wallerstein.pdf>

Giovanni Arrighi. 2010. *The Long Twentieth Century: Money, Power, and the Origins of Our Times*.

Joseph Schumpeter. 1942. *Capitalism, Socialism and Democracy*.

Frederich Hayek. 1944. *Road to Serfdom*. URL: <https://mises.org/library/road-serfdom-0>

Boltanski, Luc, and Eve Chiapello. 1999. *The New Spirit of Capitalism*. Verso.

Paul Baran and Paul Sweezy. 1966. *Monopoly Capital*. Monthly Review Press

George Akerlof., and Robert J. Shiller. 2009. *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*.

Samir Amin. 1970. *Accumulation on a world scale*

Rudolf Hilferding. 1910. *Finance Capital*. URL: <https://www.marxists.org/archive/hilferding/1910/finkap/>

David Harvey. 2001. *Spaces of Capital: Towards a Critical Geography*.

### **Supplementary Reading:**

Paul Baran. 1957. *Political Economy of Growth*.

A Gramsci. 1999. *Selections from Prison Notebooks*. URL: <http://abahlali.org/files/gramsci.pdf>

Karl Polanyi. 1944. *The Great Transformation: the Political and Economic origins of our Time*. URL: [https://inctpped.ie.ufrj.br/spiderweb/pdf\\_4/Great\\_Transformation.pdf](https://inctpped.ie.ufrj.br/spiderweb/pdf_4/Great_Transformation.pdf)

Immanuel Wallerstein. 2004. *World Systems Analysis: An Introduction*.

Ellen Wood. 1995. *Capitalism and Human Emancipation: Race, Gender, and Democracy*

Chandra Talpade Mohanty. 2003. *Feminism Without Borders: Decolonizing Theory, Practicing Solidarity*

Neil Smith. 1984. *Uneven Development: Nature, Capital, and the Production of Space*

## **ECONOMETRICS**

### **CORE COURSE**

#### **COURSE CODE – MAECO03C08**

### **Course Objectives**

This course helps the students to develop the analytical and empirical skills necessary to understand the formulation of economic theory and also enable them to formally represent economic relationships using mathematical and econometric tools and provide meaningful interpretations of these representations. Students will be able to analyze empirically economic relationships using simple, multiple regression, or simultaneous equation techniques. This course enables the students to develop the analytical and empirical skills relating to use of dummy variables and lag variables

### **Course Outcome**

1. Develop an understanding of various econometric models used in estimation process
2. To enable students to understand various concepts related to errors in estimation
3. Enable the students to gain knowledge and skills in handling different types of econometric data.

### **Module 1**

Definition and scope of Econometrics - methodology of econometrics- specification of model – model estimation– model evaluation -two variable regression analysis- estimation and testing- standard error, student t/Z test- coefficient of determination and F test- econometric problems- autocorrelation, multicollinearity and heteroscedasticity – reasons, tests consequences and remedies

## Essential Reading

- Klien L.R..1962 *Introduction to Econometrics*. New Jersey: Prentice Hall Inc. Englewood Cliffs.  
Damodar N. Gujarati.1992. *Essentials of Econometrics*.McGraw Hill.  
Damodar N. Gujarati.2000. *Econometrics*.

## Supplementary Reading

- G. M. K Madhani.2015. *Introduction to Econometrics: Principles and Applications*.CBS publishers & distributors.8<sup>th</sup> edition  
Wooldridge, Jeffrey M. 2003. *Introductory Econometrics: A Modern Approach*, Second Edition. USA: Thomson South Western.

## Module – II

Dummy variables- Use of dummy variables- Regression on dummy variables dummy variable trap – Dummy dependent variable models- LPM, Logit, Probit,Tobit Models -Lagged variables - Regression with Lagged Variables – Distributed Lag Models.- estimation of distributed lag models – autoregressive schemes estimation procedure

## Essential Reading

- Damodar N. Gujarati1995. *Basic Econometrics*.McGraw Hill.  
Michael D. Intriligator.1980. *Econometric Models, Techniques and Applications*, New Delhi: Prentice Hall of India.  
A. Koutsoyiannis.2004. *Theory of Econometrics*. Palgrave.  
Greene, W. 2008.*Econometrics Analysis*. Pearson.  
Johnston, J. and John DiNardo, 1997.*Econometric Methods*. 4th Edition, London: McGraw-Hill Companies Inc.

## Supplementary Reading

- Pindyck, Robert S. and Daniel L. Rubinfeld .1995.*Econometric Models and Economic Forecasts*. 4th Edition New York: Irwin McGraw-Hill.  
Ramanathan, Ramu .2000. *Introductory Econometrics with Applications*.5<sup>th</sup> Edition.New Delhi: Cengage Learning India Pvt. Ltd.

## Module – III

Simultaneous equation model – nature – simultaneous equation bias –structural and reduced form model- Identification problem- recursive models- indirect least squares -two stage least square - three stage least square

## Essential Reading

- A. Koutsoyiannis.2004. *Theory of Econometrics*. Palgrave.  
Greene, W. 2008.*Econometrics Analysis*. Pearson.  
Johnston, J. and John Di Nardo, 1997.*Econometric Methods*. 4th Edition, London: McGraw-Hill Companies Inc

## Supplementary Reading

- Raw and Miller. R.L.,1959. *Applied Econometrics*, PHI, Delhi

Michael D. Intriligator.1980. *Econometric Models, Techniques and Applications*, New Delhi: Prentice Hall of India.

#### **Module – IV**

Time Series Analysis: Stationarity; Autocorrelations and Partial Autocorrelation Functions; Unit roots and Units roots tests; ARIMA modelling - Limitations of time series analysis

#### **Essential Reading**

- Johnston. J. 1972. *Econometric Methods*. New York: McGraw Hill Book Company.  
Klien L.R. A. 1974.*Text Book of Econometrics*. New Jersey: Prentice Hall Inc. Englewood Cliffs.  
Maddalla G.S.1977. *Econometrics*. New York: McGraw Hill.  
Desai, Meghand. 1976. *Applied Econometrics*. New York: McGraw Hill Book Co.  
Baltagi, B. H. 2008. *Econometric Analysis of Panel Data*.4th edition, John Wiley.  
Enders, Walter .2009. *Applied Econometric Time Series*. 3rd Edition, Wiley  
Everitt, Brian S and Dunn, Graham. 2001. *Applied Multivariate Data Analysis*. Second Edition. Arnold.

#### **Supplementary Reading**

- Thomas, R.L .1993. *Introductory Econometrics: Theory and Applications*. London : Longman.  
Patterson, Kerry .2001. *An Introduction to Applied Econometrics – A Time Series Approach*. London: MacMillan Press Ltd.

## **POPULATION STUDIES**

### **ELECTIVE COURSE**

### **COURSE CODE – MAECO03E04**

#### **Aims and Objectives**

The basic objective of this paper is to introduce the students to the scope and importance of the discipline of population studies. The students are expected to get clear idea of the evolution and the scope of the discipline, past, present and future scenario of population growth and sex age structures of the world, major regions and India. They will familiar with various sources of demographic data with a focus on India.

#### **Learning Outcome**

Students will be able to distinguish among different terms used for fertility and mortality study also understanding about population dynamics.

#### **Module-1**

Population studies-Meaning-Nature-Scope-Importance-basic concepts- Population data- Methods and Sources-World population growth and distribution- Population growth in India and Kerala- Theories of Population growth- Karl Marx's theory of population growth-Malthusian- Optimum and Demographic Transition Theories of Population- views of C. P. Blacker, Boserup. Biological Theories of Population; Socio- economic theories of population views of Marx and Leibenstein; Approaches of Meadows, and Simon.Human development and millennium development goals.

Structure and characteristics of Indian Population- Sex and Age structure- Marital status- Literacy and Education-Religious composition-Ethnic composition- Health- Life Expectancy Index- Population Ageing- Ageing in India and Kerala- Emerging Issues- gender issues and development

### **Essential Reading**

Asha A. Bhande and Tara Kanikkar. 1988. *Population Studies*. Himalaya Publishing House.  
Prasad P.K. 1990. *Population Planning, Policy and Programme*. New Delhi: Deep and Deep Publications.  
Colin Neuwell. 1998. *Methods and Models in Demography*. London: Belhaven Press.  
Peter R. Cox. 1989. *Demography*. New Delhi: Universal Book Stall.

### **Supplementary Reading**

D. S. Adhikari. 2008. *Population challenge and world crisis: documents and case studies*. New Delhi: cyber tech publications.  
Samuel H Preston, Patrick Heuveling and Michel Guillot. 2001. *Demography: Measuring and Modeling Population Processes*. U.K and U. S. A: Black well Publishers.

### **Module-2**

Population Dynamics- Mortality- Measures of Mortality- Use of Life- Table Techniques- Sex and Age Pattern of Mortality- Mortality Differentials- Level and Trends in Mortality- Fertility- Level and Trends- Nature of Fertility- Measures- Differentials in Fertility- Theories of Fertility- Nuptiality- Marital Status- Mean age at marriage- Widowhood and Divorce- Population trends in modern economic growth- Mass education and fertility decline- co-operation, inequality and the family (Amartya Sen).

### **Essential Reading**

P.G.K. Panikar and C.R. Soman. 1985. *Health Status of Kerala*. Trivandrum: Centre for Development Studies.  
Demeny and Geoffrey Menicoll. 1998. *Population and Development*. Earth Scan Publications.  
D.J. Bogue. 1971. *Principles of Demography*. Wiley.

### **Supplementary Reading**

Hansraj. *Population Studies with special reference to India*. New Delhi: Surjit Publications.

### **Module- 3**

Migration and Urbanization -Basic concepts- Importance- Types of Migration- Migration Differentials- Levels and Trends of Migration- Socio- Economic aspects of Migration- Theory of Migration- Techniques of Measurement of Migration- Urbanization – Distribution and Trends in Urban Population- Measures- Factors affecting Urbanization.

### **Essential Reading**

Rajendra K Sharma. 2007. *Demography and Population Problems*. Atlantic Publishers  
D.J. Bogue. 1971. *Principles of Demography*. Wiley.

### **Supplementary Reading**

Hansraj. *Population Studies with special reference to India*. New Delhi: Surjit Publications.

### **Module-4**

Population Projection and Population Policies in India- Population problem, Family planning and family welfare- Population Projection and Estimation- Methods and Importance of Population Projections- use of population data in development planning- Population Policies and Programmes in India- India's Experiences- Population growth and socio economic development, environment and

health-Conceptual issues and linkages with environment and health- population and health, population and poverty.

### **Essential Reading**

B.D. Misra. 1980. *An Introduction to the study of population*. South Asian Publishers.

Rajendra K Sharma. 2007. *Demography and Population Problems*. Atlantic Publishers.

### **Supplementary Reading**

Hansraj. *Population Studies with special reference to India*. New Delhi: Surjit Publications.

B. A. Prakash and V. R. Prabhakaran Nair. 2008. *Kerala's Development Issues in the New Millennium*. New Delhi: Serials publications.

B. A. Parkash. 2004. *Kerala's Economic development- Performance and Problems in the post liberalized period*. Second edition, New Delhi: Sage Publication.

## **HEALTH ECONOMICS**

### **MULTI- DISCIPLINARY/ INTER-DISCIPLINARY SOFT CORE /OPEN COURSE**

#### **COURSE CODE: MAECO03 O 01**

#### **Aim & Objectives**

Health economics is a growing field of economics primarily dealing with issues relating to scarcity in the allocation of health and health care. In the recent past, some of the policies by the state and federal governments have involved issues that have been analyzed by the health economist.

1. The course expects to furnish under studies with adequate foundation in wellbeing financial matters hypothesis to have the option to see how the social insurance advertise functions and under what conditions human services can be productively delivered and apportioned however markets, guidelines and arranged framework.
2. Specifically the course furnish under studies with capacity to comprehend the ramifications of market and government disappointments with regards to human services, and see what number of foundations and administrative game plans saw in the area can be connected to various kinds of business sectors.
3. To give a prologue to wellbeing financial aspects hypothesis and techniques and how they could be applied to dissect the working of wellbeing framework and the determinants of wellbeing and utilization of wellbeing administrations.
4. How medical coverage impacts the interest at social insurance and its costs .

#### **Learning Outcome**

1. A better command in the major theories and frameworks for core areas of health economics in terms of main issues, methods, results and unresolved problems.
2. A sound knowledge of how economic theory and methods are applied in the health care sector; the financing and organization of health services in different system, health insurance theory and practice, the nature of competition and planning in health care; efficiency and equity considerations in health and health care.
3. Demonstrate interest in health economics and motivate students to undertake future research and build their careers.

**Module-1: Introduction** Why Health Economics? Nature and scope. Determinants of Health, Health and Development, Issues of availability, accessibility, cost and quality. Theoretical Foundations in Health Economics: Demand and Supply for Health-Demand and Supply of Human resources for health -The Production of Health- The Demand and supply of health workers –Determinants of Demand and supply.

### **Essential Reading**

Holland, Goodman and Stano . 2009. The Economics of Health and Health Care. Pearson Education.  
Zweifel, P and Breyer, F. 1997. The Health Economics. OUP: Oxford.  
Turshen.M .1989.The Politics of Health. London: Zed Books Ltd.  
Monica Das Gupta,Chen. L.C and Krishnan T. N. 1996.Heath, Poverty and Development in India.New Delhi: OUP.

### **Supplementary Reading**

Narayana D . 2008. High Health Achievements And Good Access To Health Care At Great Cost: The Emerging Kerala Situation in Haddad et.al (ed): Safeguarding the health sector in times of macroeconomic instability: policy lessons for low- and middle-income countries.  
Wagstaff, Adam . 1986. The Demand for Health: A Simplified Grossman Model. Bulletin of Economic Research, Vol.38, No.1.

**Module-2: Health planning** Types – stages and challenges in planning – health inequalities – health financing – and health problem performance – concepts, criteria and measurement – health system organization models-What is health care system?-Why do health care system differs-Four models of health care system-Free market model-Social insurance-NHS and socialist.

### **Essential Reading**

John Davis. 2001. The Social Economics of Health Care. London:Routledge. Imrana Quadeer ed. 2003,Public Health and Poverty of Reforms, New Delhi: Sage publications.  
Lee, Kenneth and Anne Mills ed. 1985.The economics of Health in Developing Countries. OUP: Oxford.  
Baru, R, V. 1998. Private Health Care in India: Social Characteristics and Trends. New Delhi: Sage publications.

### **Supplementary Reading**

Wagstaff, Adam . 1986. The Demand for Health: A Simplified Grossman Model. Bulletin of Economic Research, Vol.38, No.1.

Gangadharan K. 2010. Health and Development: The Millennium Perspectives. New Delhi: Rawat Books.

**Module-3: Externalities and Market Failure** Issues of Externalities-Private sector in health care provision-the role of public/private mix in health system-privatization of public health –problem of mixing public and private. - Government Intervention in Health Care Markets - Economic Rationale for Government Intervention - Government Failures and Competitive Strategies.

### **Essential Reading**

Berman Peter. 1995. Health Sector Reforms in Developing Countries, Making Health Developments Sustainable.Boston:Harvard School of Public Health.

Arrow, Kenneth J . 1963. Uncertainty and welfare economics of medical care. American Economic Review.

### **Supplementary Reading**

Gangadharan K. 2009. Paradigm Shift in health and Education in India. New Delhi: Serials.

Ashokan, A. 2009. Perspectives of Health Economics. New Delhi: Serials Publications.

**Module – 4 Urban health system-** An overview of methods of studying urban health system. Health Care Sector in India- Public and Private Care Providers-Factors influencing the growth of private sector in health Economic Reforms and Health Sector in India - Health Insurance: Issues and Strategies – User Financing: Issues. Health and nutritional deprivation among the marginalized. Health Care Development in Kerala - Is Kerala's Health Care Sector Sustainable? Greying of population and health of elderly in Kerala.

### **Essential Reading**

Berman Peter. 1995. Health Sector Reforms in Developing Countries, Making Health Developments Sustainable. Boston: Harvard School of Public Health.

Arrow, Kenneth J . 1963. Uncertainty and welfare economics of medical care. American Economic Review.

Guy Carrin. 2009. Health Systems Policy, Finance, and Organization. Academic Press

### **Supplementary Reading**

Narayana D . 2008. High Health Achievements And Good Access To Health Care At Great Cost: The Emerging Kerala Situation in Haddad et.al (ed): Safeguarding the health sector in times of macroeconomic instability: policy lessons for low- and middle-income countries.

Gangadharan. K. 2012. Nutritional and Health care deprivation An inter caste analysis. New Delhi: Manglam Publication.

Ashokan, A. 2009. Perspectives of Health Economics. New Delhi: Serials Publications.

## **FINANCIAL INSTITUTIONS AND MARKETS**

### **CORE COURSE**

#### **COURSE CODE – MAECO04C09**

#### **Objectives**

The course provides an overview of financial system, structure and its role, conceptual idea on financial development, relation between financial system and economic development, functions, components and developments of financial markets, Financial sector reforms, structure and growth of non-banking financial institutions, innovations and developments of financial services and instruments and knowledge on global financial markets.

#### **Outcome**

The course helps the students to understand the financial system and its role in economic development. The students acquire a comprehensive knowledge about the role of financial market in investment decisions in stock markets and create an ability to make security analysis and promote them to make better investment decision for the development of the economy.



## Module I

**Financial system**-structure, nature and role of financial system-classification of financial institutions- financial system and Economic development- indicators of financial development-criteria to evaluate a financial system- concepts of financial development -financial innovation-financial engineering-financial revolutions –diversifications- disintermediation- financial repression-prudential regulation- internationalization and globalization-securitization.

### Essential Reading

L.M.Bhole. 2007.*Financial institutions and Markets*. New Delhi: McGraw Hill company.

L M Bhole and Jitendra Mahakud. 2017. *Financial institutions and Markets*. New Delhi: McGraw Hill Education Private Ltd.

M.Y Ghan. 2008. *Indian Financial system*. New Delhi: McGraw Hill company.

Meir Kohn. 2007. *Financial institutions and Markets*. UK: Tata Mc GRaw Hill.

S Guruswamy. 2009. *Financial Institutions and markets*. UK: Tata McGraw Hill.

Rajesh Chakravarty. 2009. *The financial sector in India*. Oxford.

Pallale V Bharati. 2012. *Indian Financial system*. New Delhi: Pearson.

Meir Kohn. 2017. *Financial Institutions and Market*. New York: Oxford University Press.

Niti Bhasin. 2017. *70 years of Banking system in India*. New Century publication.

*Trends and Progress of Banking India*, RBI various issues

### Supplementary Reading

Rajesh Chakra Bharthi. 2006. *The Financial Sector in India: Emerging Issues*. New Delhi: Oxford University Press.

Mohanan S and Benson Kunjuu Kunju. 2012. *Financial Markets and Financial Services in India*. New Delhi: New Century Publication.

Bhavesh Bhatt. 2013. *Financial Economics*. Vista Publication.

Machiraju H.R. 2018. *Indian Financial System*. Vikas Publishing Ltd.

## Module II

**Financial market**-meaning-classifications-money market-objectives – functions-importance-components-call money market-treasury bill market-commercial bill market-certificate of deposit Market- bond market, stock market, derivatives market Acceptance Market-collateral loan Market-Capital market- objectives-functions-importance-structure-primary and secondary market-stock exchange-meaning and functions- Stock exchanges in India-SEBI.-Financial sector reforms .

### Essential Reading

L.M.Bhole. 2007.*Financial institutions and Markets*. New Delhi: McGraw Hill company.

L M Bhole and Jitendra Mahakud. 2017. *Financial institutions and Markets*. New Delhi: McGraw Hill Education Private Ltd.

M.Y Ghan. 2008. *Indian Financial system*. New Delhi: McGraw Hill company.  
Meir Kohn. 2007. *Financial institutions and Markets*. UK: Tata Mc Graw Hill.  
S Guruswamy. 2009. *Financial Institutions and markets*. UK: Tata McGraw Hill.  
Meir Kohn. 2017. *Financial Institutions and Market*. New York: Oxford University Press.

### **Supplementary Reading**

Avadhani V A. 2003. *Investment and Securities Markets of India*. Himalaya Publishing House.  
Thomas, Susan. 2003. *Derivatives Markets in India*. Tata McGraw-Hill.  
RBI Bulletin. *CMIE Reports*. Prime Data Base. sebi.com, nseindia.com, bseindia.com.  
R.E. Bailey. 2005. *The Economics of Financial Markets*. New York: Cambridge Private Ltd.  
Mohanan S and Benson Kunjuu Kunju. 2012. *Financial Markets and Financial Services in India*. New Delhi: New Century Publication.  
Bhavesh Bhatt. 2013. *Financial Economics*. Vista Publication.  
H.R. Machiraju. 2018. *Indian Financial System*. Vikas Publishing Ltd.

### **Module III**

Non-Banking Financial Intermediaries- insurance companies-miscellaneous NBFIs –structure and growth-role and functions-Hire purchase-lease finance-Housing finance-Merchant Banking- venture capital- mutual funds –credit rating agencies-debt securitization –disinvestment-insider rating-corporate restructuring.

### **Essential Reading**

L.M. Bhole. 2007. *Financial institutions and Markets*. New Delhi: McGraw Hill company.  
L M Bhole and Jitendra Mahakud. 2017. *Financial institutions and Markets*. New Delhi: McGraw Hill Education Private Ltd.  
M.Y Ghan. 2008. *Indian Financial system*. New Delhi: McGraw Hill company.  
Hazel J Johnson. 2000. *Global financial institutions and Markets*. UK: Mc Graw Hill company.

### **Supplementary Reading**

Mohanan S and Benson Kunjuu Kunju. 2012. *Financial Markets and Financial Services in India*. New Delhi: New Century Publication.  
Bhavesh Bhatt. 2013. *Financial Economics*. Vista Publication.  
Machiraju H.R. 2018. *Indian Financial System*. Vikas Publishing Ltd.

## **Module IV**

Global Financial markets- global innovative instruments-global foreign exchange market- global banking-offshore banking -global equity market and major global financial market- new generation banks- Digital technology in banking sector - internet banking-Mobile banking- digitization of financial services-RTGS-NEFT-CFMS-CTS-MICR- speed clearance-E wallet- plastic money- its merits and demerits.

### **Essential Reading**

Meir Kohn. 2007. *Financial institutions and Markets*. UK: Tata Mc GRaw Hill.

S Guruswamy. 2009. *Financial Institutions and markets*. UK: Tata McGraw Hill.

Rajesh Chakravarty. 2009. *The financial sector in India*. Oxford.

Pallale V Bharati. 2012. *Indian Financial system*. New Delhi: Pearson.

Meir Kohn. 2017. *Financial Institutions and Market*. New York: Oxford University.

Siddaih Thumnulari. 2016. *Financial services*. Pearson.

### **Supplementary Reading**

Avadhani V A. 2003. *Investment and Securities Markets of India*. Himalaya Publishing House.

Thomas, Susan . 2003. *Derivatives Markets in India*. Tata McGraw-Hill.

Ramesh Babu G. 2005. *Financial services in India*. Concept publishing Company Ltd.

Mohanan S and Benson Kunjuu Kunju. 2012. *Financial Markets and Financial Services in India*. New Delhi: New Century Publication.

Bhavesh Bhatt. 2013. *Financial Economics*. Vista Publication.

H.R. Machiraju . 2018. *Indian Financial System*. Vikas Publishing Ltd.

## **ECONOMICS OF GROWTH AND DEVELOPMENT**

### **ELECTIVE COURSE**

### **COURSE CODE – MAECO04E06**

#### **Objectives**

The course covers concept, measurement and indicators of economic growth and development, important theories on economic growth and development, role of agriculture, industry and technology in economic development, international aspects of economic development, planning experiences of India and Kerala and financial inclusion and economic development.

#### **Outcome**

The course helps the students to identify the development issues and also the basic requirements for economic development of underdeveloped and developing countries.

## **MODULE-1 GROWTH, DEVELOPMENT AND THEORIES**

Growth and Development -An overview-The Historical Records; Kuznet's characteristics- Concept and measurement of economic growth and development-Indicators of Development- – National Income- Per capita Income-Dimensions of Development gap-PQLI –HDI –HPI-Gender Related Development Index(GDI) – Gender Empowerment Measure(GEM) –Multi Dimensional Poverty Index –Inequality and development-Kuznet's hypothesis-Lorenz Curve- Gini-Co-efficient- Sen's Entitlement and Capabilities Approach-Development as freedom-Basic need approach Problems of Development

### **Essential Reading**

J.R. Hicks. 1965.*Capital and Growth*. New Delhi: OUP.

Gunnar Myrdal.1968. *Asian Drama: An Inquiry In to the Poverty of Nations*. II Vol. New York: Pantheon.

*World Bank Development Reports for various years.*

UNDP.*Human Development Reports for various years.*

Debraj Ray. 2001. *Economics of Development*. New Delhi: Oxford University Press.

Amartya Sen. 1999. *Development as Freedom*. New Delhi: Oxford University Press.

Agalwal and S.P. Singh (Ed). 1985. *The Economics of Underdevelopment*. Delhi: OUP, Delhi.

J.N. Bhagwati (Ed). 1985. *Dependence and Interdependence- Essays in Development Economics*. Vol-1&2,. Bombay: OUP.

Michel P Todaro. 1923. *Economics for Developing World*. London:Longman.

Dreze Jean and Sen Amartya. 1993.*Hunger and public Action*. Delhi: OUP.

### **Supplementary Reading**

Vandana Desai and Robert B Potter. 2008. *The Companion to development studies-II edn*. A hodder viva edn,. New Delhi: Viva books Pvt Ltd

H L Ahuja. 2016. *Development Economics*. Edited by S.Chand.

## **MODULE-II THEORIES OF GROWTH AND DEVELOPMENT**

Classical Theories-Cambridge Growth models- Neo- Classical Growth models- Endogeneous Growth models- Development paradigms- Modernist-Paradigms- Partial theories of growth and development-The stages of growth: Rostow – Surplus Labour :Lewis-Big Push :Rosenstein Rodan- Balanced Growth: Nurkse – Unbalanced Growth: Hirschman – Critical Minimum Effort Thesis:Leibenstein-Low Level Equilibrium Trap: Nelson- Dual Economy Model: Fei and Ranis Model–Circular and Cumulative Causation : Myrdal- Todaro model.

### **Essential Reading**

Gerald M Meier and James E Rench (Ed).2005 *Leading Issues in Economic Development*.8<sup>th</sup> Edition.

A.P.Thirwall. 2003.*Growth and Development with Special Reference to Development Economics*. Palgrave.

Michael P. Todaro, and Stephen C. Smith. 2004. *Economic Development*, 8th Edition.

Hentry Wan (JR).1971. *Economic Growth*.penguin books.

Bakul H Dholakya and Raveendra H Dholakya. 1998. *Theory of Economic Growth and Technical Progress- An Introduction*.Delhi: MacMillian.

Hywd G Jones. 1976. *An Introduction to Modern Theory of Economic Growth*. McGraw Hill.

### **Supplementary Reading**

Yujiro Hayami and Yoshihisa Godo. 2005. *Development Economics* (3rd Edn). New Delhi: Oxford University Press.

M.P.D.Todaro and S.C.Smith. 2005. *Economic development*. 8th Edition.Person Education. Delhi: Indian branch.

### **MODULE-III AGRICULTURE, INDUSTRY, CAPITAL AND TECHNOLOGY IN DEVELOPMENT**

Role of Industrialization in Development –factors inhibiting –policies for Industrialisation, agriculture and Economic Development – Agricultural policy in Developing countries – complementary role of industry and agriculture in Development- Globalisation and agriculture- Capital and Development–stages of capital formation- sources-Importance of ICOR--Role of technology in development– Choice of techniques – Significance of capital saving and labour saving techniques- role of Intermediate technology- Issues related to transfer of technology.

#### **Essential Reading**

Debraj Ray. 2001. *Economics of Development*. New Delhi: Oxford University Press.

Gerald M Meier and James E Rench (Ed).2005 *Leading Issues in Economic Development*.8<sup>th</sup> Edition.

A.P.Thirwall. 2003.*Growth and Development with Special Reference to Development Economics*. Palgrave.

Michael P. Todaro, and Stephen C. Smith. 2004. *Economic Development*. 8th Edition.

Hentry Wan (JR).1971. *Economic Growth*.penguine books

Bakul H Dholakya and Raveendra H Dholakya. 1998. *Theory of Economic Growth And Technical Progress- An Introduction*. Delhi: MacMillian.

Hywd G Jones. 1976. *An Introduction to Modern Theory of Economic Growth*. McGraw Hill.

Agalwal and S.P. Singh (Ed). 1985. *The Economics of Underdevelopment*. Delhi: OUP.

Michel P Todaro. 1923. *Economics for Developing World*. London: Longman.

D.Nayyar (Ed). 1994. *Industrial Growth and stagnation: The debate in India*. Oxford University Press.

J.Bhagawati and Padma Desai.1970.*Planning for Industrialisation*.Oxford University Press.

#### **Supplementary Reading**

Yujiro Hayami and Yoshihisa Godo. 2005. *Development Economics* (3rd Edn). New Delhi: Oxford University Press.

M.P.D Todaro and S.C.Smith . 2005. *Economic development*. 8th Edition.Person Education. Delhi: Indian branch.

Vandana Desai and Robert B Potter. 2008. *The Companion to development studies-II* edn. A hodder viva edn,. New Delhi: Viva books Pvt Ltd

H L Ahuja. 2016. *Development Economics*. Edited by S.Chand.

### **MODULE-IV INTERNATIONAL ASPECTS OF DEVELOPMENT AND PLANNING**

Role of foreign trade, foreign capital and foreign aid in the Development process- Private foreign Investment –MNCs and Development issues- Public foreign Investment – foreign aid and Development –Tied aid and Untied aid - International Agencies and development- IMF-IBRD IFC ADB and UNDP-Rationale for planning –Types, Tools and techniques in planning-Indian Planning Experiences- NITI Aayog- Micro level planning- Decentralized planning experience in Kerala – Development Plans at the local level in Kerala- Role of micro credit –SHGs- Contributions of Grameen Banks: Examples of Bangladesh and Kerala —Kudumba Sree in the development process

#### **Essential Reading**

Debraj Ray. 2001. *Economics of Development*. New Delhi: Oxford University Press.

Gerald M Meier and James E Rench (Ed).2005 *Leading Issues in Economic Development*.8<sup>th</sup> Edition. A.P.Thirwall. 2003.*Growth and Development with Special Reference to Development Economics*.Palgrave.  
 Michael P. Todaro, and Stephen C. Smith. 2004. *Economic Development*. 8th Edition.  
 Hywd G Jones. 1976. *An Introduction to Modern Theory of Economic Growth*. McGraw Hill.  
 Agalwal and S.P. Singh (Ed). 1985. *The Economics of Underdevelopment*. Delhi: OUP, Delhi.  
 J.N. Bhagwati (Ed). 1985. *Dependence and Interdependence- Essays in Development Economics*. Vol-1&2,. Bombay: OUP.  
 Michel P Todaro. 1923. *Economics for Developing World*. London:Longman.  
 Sukhomoy Chakraborty. 1998. *Development Planning –Indian Experience*. Delhi: OUP.  
 Sukhmoy.Chakrawarti.1998. *Development Planning: The Indian Experience*. India: OUP.

### **Supplementary Reading**

Yujiro Hayami and Yoshihisa Godo. 2005. *Development Economics* (3rd Edn). New Delhi: Oxford University Press.  
 M.P.D Todaro and S.C.Smith . 2005. *Economic development*. 8th Edition. Person Education. Delhi: Indian branch.  
 Vandana Desai and Robert B Potter. 2008. *The Companion to development studies-II* edn. A hodder viva edn,. New Delhi: Viva books Pvt Ltd  
 H L Ahuja. 2016. *Development Economics*. Edited by S.Chand.

## **OPERATIONS RESEARCH FOR ECONOMIC ANALYSIS ELECTIVE COURSE COURSE CODE – MAECO04E07**

### **Objectives**

This paper covers the basic Operation Research techniques and deals with the application of these techniques in business practices. This paper enables the students to familiarize with Operation Research techniques and its applications in managerial decision making. To introduce the students to the basic operation research techniques such as Linear Programming, Game theory, Input-output analysis, PERT and CPM and inventory control that are widely used in decision making.

### **Outcome**

To enable the students to apply operation research techniques in current business practices and to make them draw inference based on the numerical results obtained.

### **Module-1**

**Introduction to Operations Research:** History and development of OR-meaning and scope applications Modeling in Operations Research- OR models and their applications. **Linear programming problems:** formulation of problem- graphical solution- Simplex procedure for maximization and minimization- Unbounded Solution- Duality concept-solution of dual problem- Economic interpretation of dual problems- Post-Optimal Analysis- Sensitivity Analysis.

### **Essential Reading**

J.K Sharma. 1997. *Operations Research- Theory and Applications*.  
 William J. Baumol. 1999. *Economic Theory and Operations Analysis*. New Delhi: Prentice Hall of India.  
 Anderson, Sweeney & Williams 2007, *An Introduction to Management Science- Quantitative approaches to Decision Making*. Thomson- South Western.

### **Supplementary Reading**

Philips Ravindran and Solberg. *Operations research, principles and Practice*, John Wiley.

### **Module-2**

**Transportation Model:** Mathematical formulation- general structure of the problem- transportation tables- methods to obtain Initial Basic Feasible Solution (IBFS)- NWCR and VAM- conditions for testing optimality- MODI method for testing optimality solution of balanced and unbalanced problems. **Assignment Model:** methods for solving assignment problems- balanced and unbalanced assignment problems- maximization problems. Travelling Salesman Problem.

### **Essential Reading**

J.K Sharma. 1997. *Operations Research- Theory and Applications*.

William J. Baumol. 1999. *Economic Theory and Operations Analysis*. New Delhi: Prentice Hall of India.

### **Supplementary Reading**

Philips Ravindran and Solberg. *Operations Research, principles and Practice*, John Wiley.

### **Module- 3**

**Decision Theory:** Introduction- basic concepts- pay off table- opportunity loss or regret table- decision rule - decision making under certainty- under uncertainty- Laplace criterion- maximin or minimax principle- maximax or minimax principle- Harwicz  $\alpha$  criterion- under risk- Expected Opportunity Loss- Expected Value of Perfect Information (EVPI)- Bayesian decision theory- Decision tree. **Game theory:** Introduction- meaning-the zero sum games- pay off matrix- minimax and maximin principle- solution of zero sum two person games- saddle point theorem- mixed strategies- algebraic method, dominance properties- optimal mixed strategies- graphical method and solution of games by LPP-  $2 \times n$  and  $m \times 2$  games- reducing the game problem to LPP- n-person games (concept).

### **Essential Reading**

Rao S.S. *Optimisation Theory and Applications*. New Age International.

Taha.H.A. *Operations Research- An Introduction*. Mc.Millan.

William J. Baumol. 1999. *Economic Theory and Operations Analysis*. New Delhi: Prentice Hall of India.

Kanathi Swarup, Gupta and Man Mohan. *Operations Research*. Sultan Chand & Sons

### **Supplementary Reading**

R. Pannerselvam. 2002. *Operations Research*. PHI

### **Module- 4**

**Network Techniques:** PERT and CPM- Basic concepts- construction of networks- critical path- event times- float and slack, time cost- trade off- resource allocation and scheduling- resource levelling- resource smoothing.

### **Essential Reading**

Kanathi Swarup, Gupta and Man Mohan. *Operations Research*. Sultan Chand & Sons.

J.K Sharma. 1997. *Operations Research- Theory and Applications*.

### **Supplementary Reading**

Philips Ravindran and Solberg. *Operations research, principles and Practice*. John Wiley.

R. Pannerselvam. 2002. *Operations Research*. PHI.

# DATABASES ON THE INDIAN ECONOMY AND BASIC COMPUTATIONAL TECHNIQUES FOR DATA ANALYSIS

## ELECTIVE COURSE

COURSE CODE - MAECO04E16

### Course Objectives:

The course intends to provide the students the benefits of secondary data and introduces the sources of socio-economic data in India and the world. The various socio-economic databases will be introduced along with hands on training on how to derive the data and do basic data analysis using Gretl, R, Ms Excel and Google Spreadsheet software.

### Course Outcomes:

To develop students who are well versed in handling secondary sources of socio-economic data. The course also aims to produce trained professionals who can effortlessly do data analysis using open source statistical software. In essence, the major outcome of the course is to develop Economics students fit for modern data analytical jobs.

**Module 1:** Introduction to secondary data - Databases on the Indian Economy – National Income – Public Finance – Money, Banking and Stock Markets - BoP & External Sector - RBI databases – Government of India, Ministry of Statistics and Programme Implementation Reports – - Economic Survey – Use of Administrative Data - Cross country databases - World Bank Indicators - UN data sets – Penn World Tables Weather and Spatial Data-population census data.

### *Essential References*

Marc Riedel, 2005. **Secondary Data**. Editor(s): Kimberly Kempf-Leonard in Encyclopedia of Social Measurement, Elsevier. Pages 455-461, <https://doi.org/10.1016/B0-12-369398-5/00071-2>.

Reserve Bank of India. 2017. **Database on the Indian Economy**. <https://dbie.rbi.org.in/DBIE/doc/Brochure%20on%20DBIE%20-2017%20English.pdf>

Reserve Bank of India. 2020. **Handbook of Statistics on Indian Economy**. <https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>

World Bank. 2021. **World Development Report 2021 : Data for Better Lives**. Washington, DC: World Bank. ©

World Bank. <https://openknowledge.worldbank.org/handle/10986/35218>

Narayana., Ranjan and Tyagi. 2021. **Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel**. Sage India.

### *Supplementary References*

[https://assets.cambridge.org/97805218/70016/excerpt/9780521870016\\_excerpt.pdf](https://assets.cambridge.org/97805218/70016/excerpt/9780521870016_excerpt.pdf)

[http://www.joophox.net/publist/ESM\\_DC0L05.pdf](http://www.joophox.net/publist/ESM_DC0L05.pdf)

<http://www.fao.org/3/w3241e/w3241e03.htm>

**Module 2: Introduction to Unit level databases** – Census – Economic Census – Agricultural Census - Government of India, Ministry of Statistics and Programme Implementation – NSSO Reports & Unit Level data – CMIE – ASI – Data sources on Kerala – Economic Review – Kerala Migration Surveys



### ***Essential References***

- Government of India. 2011. District Census Handbook. <https://censusindia.gov.in/2011census/dchb/DCHB.html>
- Government of India. 2021, Economic Census. <http://mospi.nic.in/all-india-report-sixth-economic-census>
- Government of India. 2016. Agricultural Census 2015-16. [https://agcensus.nic.in/document/agcen1516/ac\\_1516\\_report\\_final-220221.pdf](https://agcensus.nic.in/document/agcen1516/ac_1516_report_final-220221.pdf)
- Government of India. Data on Migration. <https://censusindia.gov.in/2011census/migration.html>
- Government of Kerala. 2020. [Economic Review 2020 | State Planning Board, Thiruvananthapuram, Kerala, India](#)
- Government of Kerala. Publications. <http://www.ecostat.kerala.gov.in/index.php/agricultures>

**Module 3: Basic computational techniques for data analysis** – Data collection from secondary sources – Data entry & Data Cleaning in Microsoft Excel, Google Spread Sheets, Gretl and R – Time Series, Cross section and Panel data data – Basic Arithmetic Operations - Graphical analysis of data Percentages –Measures of Central tendencies – Growth – Index and Splicing – Output and Prices - Indexes of India –preparation of reports.

### ***Essential References***

- Narayana, Ranjan and Tyagi. 2021. Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel. Sage India.
- McLennan, W. 1999. A Guide to the Consumer Price Index. Australian Bureau Of Statistics. [https://www.ausstats.abs.gov.au/ausstats/free.nsf/0/EC37AE985DB7EB75CA256ADC000C35C6/\\$File/644001998.pdf](https://www.ausstats.abs.gov.au/ausstats/free.nsf/0/EC37AE985DB7EB75CA256ADC000C35C6/$File/644001998.pdf)
- Government of India. 2010. Manual on Consumer Price Index. MOSPI. [http://mospi.nic.in/sites/default/files/publication\\_reports/manual\\_cpi\\_2010.pdf](http://mospi.nic.in/sites/default/files/publication_reports/manual_cpi_2010.pdf)

### ***Supplementary References***

- Reserve Bank of India. 2017. **Database on the Indian Economy**. <https://dbie.rbi.org.in/DBIE/doc/Brochure%20on%20DBIE%20-2017%20English.pdf>
- Reserve Bank of India. 2020. **Handbook of Statistics on Indian Economy**. <https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>
- World Bank. 2021. **World Development Report 2021 : Data for Better Lives**. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/35218>

**Module 4: Computational techniques for data analysis** - Measures of Dispersion – Use of Scatter plot – Range – Standard deviation – Co-efficient of Variation – Skewness – Kurtosis – Interest rate Calculation – EMI calculation – Measures of association – Covariance and Correlation – Regression analysis- Linear regression – Interpretation of coefficients – Hypothesis testing using *t*-statistics, *p* value and confidence interval

### ***Essential References***

- Narayana, Ranjan and Tyagi. 2021. Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel. Sage India.
- Gujarati and Porter. 2009. Basic Econometrics. Tata McGraw Hill. Available online at [https://cbpbu.ac.in/userfiles/file/2020/STUDY\\_MAT/ECO/1.pdf](https://cbpbu.ac.in/userfiles/file/2020/STUDY_MAT/ECO/1.pdf)

**AGRICULTURAL ECONOMICS**  
**ELECTIVE COURSE**  
**COURSE CODE – MAECO03E05**

**Objectives**

The course gives an idea on agricultural economics, role of agriculture in economic development, theoretical basis for agricultural development, interrelation ship between agriculture and industry, problems and policies for agriculture development, economic decision in agriculture production, agriculture price policy and marketing, agriculture credit, impact of globalization and WTO on Indian agriculture and performance and constraints in agriculture sector in Kerala.

**Outcome**

This course will provide students with an in-depth understanding of the issues relating to Indian agriculture and farmers welfare. The focus is on analyzing structural patterns in Indian agriculture, and how policies have influenced farmers' choices and incomes. Students will be able to participate in decision making related to the agricultural sector, and to have sufficient background to undertake independent research in this area.

**Module – 1**

Nature and scope of Agricultural Economics – Role of agriculture in economic development – Theories of agricultural development – Schultz, Mellor, Fei- Ranis and Arthur Lewis, Boserup, Kuznets's Formulations and recent developments – Inter-relationship between agriculture and industry – Terms of trade between agriculture and industry- Agricultural Economics a subject of research.

**Essential Reading**

T. W. Shultz. 1965. *Transforming traditional Agriculture*. New Haven, London Yale, University Press.

J. W. Mellor. 1966 *The Economics of Agricultural Development*. Bombay: Vora & Co.

W. A. Lewis. 1954 *Economic Development with unlimited supplies of labour*.

Boserup, E. 1993. *Conditions of agricultural growth : The economics of agrarian change under population pressure*, Routledge.

Karl Eicher, and Lawrence Witt. 1964 *Agriculture in Economic Development*. Macgraw hill

O. S. Srivastava. 2010 *Theoretical Issues in Agricultural Economics*. Anmol Publications

Uma Kapila. 2005. *Understanding the Problems of Indian Economy*. Academic Foundation

H. Evan Drummond, Jhon W Goodwin (2004), *Agricultural Economics*, Pearson Education, Delhi

**Supplementary Reading**

A. Rudra. 1982. *Indian Agricultural Economics-Myth and realities*. New Delhi: Allied publishers.

P.C. Bansil .1977. *Agricultural Problems in India*. Intl Book Distributors. 2 edition.

Anwarul Hoda. 2001. *WTO agreement in Indian Agriculture*. New Delhi: Social Science Press,

**Module – II**

Agricultural Development in India – Agricultural policy since independence – Institutional and technological changes in Agricultural sector – Impact of agricultural development on environment – Organic farming – Second Green Revolution – Problems of agricultural development – National Commission on Farmers – Recent policy framework in Indian agriculture – Impact of WTO-Agreements on Agriculture – Trade liberalization and agricultural exports – Globalization and Indian agriculture – Agriculture in the context of Covid-19 pandemic.

### **Essential Reading**

G. S. Bhalla. 1995. *Globalization & Agricultural Policy in India*. Indian Journal of Agricultural Economies. Vol. 50, No. 1, January-March

C. H. Hanumantha Rao. 1995. *Liberalization of Agriculture in India*. Indian Journal of Agricultural Economics. Vol.50, No. 3, July-September.

D. Rudrappan. 2003. *Economic Reforms and Agriculture*. Yojana, Vol. 47, No. 11, November.

C. H. Hanumantha Rao. 2001. *WTO and Viability of Indian Agriculture*. Economic & Political Weekly, September 8-14, 2001, Vol. XXXVL, No. 36

P. K. Singh. 2003. *Reforms in the Agricultural Sector*. Yojana, Vol. 47, No. 11, November.

### **Supplementary Reading**

E.O. Heady. 1961. *Economics of Agricultural Production and Resource use*. Prentice Hall.

C. H. Hanumantha Rao. 1965. *Agricultural Production Function Costs and returns in India*. Tata McGraw Hill.

*Websites* of Agricultural Statistics, Agricultural Network Information Centre. State Planning Board. Planning Commission.

*Current articles* related to various modules in EPW. Indian Journal of Agricultural Economics, AERR, Agricultural Situations in India, JRD, Yojana and other referred journals.

### **Module – III**

Economic Decision in Agricultural Production – Production Function in Agriculture and forms of Production Functions-Cobb Douglas, Spill Man – Resource use and efficiency – Systems and types of farming – Agricultural subsidies – Risk and Uncertainty in Agriculture – Crop insurance – Futures trading-Demand and supply of agricultural products – Characteristics of demand and supply –Cobweb theorem – Agricultural prices –Agricultural price policy and food security in India – Agricultural marketing – Market structures and imperfections– Marketing costs – Regulated markets – Marketed and marketable surplus - Present system of agricultural marketing in India – Agricultural credit – Structure and problems of credit in India.

### **Essential Reading**

C. A. Robertson. 1977 *An Introduction to Agricultural Production Economics and Farm Management*

Karl Eicher, and Lawrence Witt. 1964 *Agriculture in Economic Development*. Vora & Co

R. K. Lekhi, and Joginder Singh. 2015 *Agricultural Economics –An Indian perspective* Kalyani Publisher

R. Desai. 2013 *Agricultural Economics*. Himalaya Publishing House

S. A. R. Bilgrami. 2017 *An Introduction to Agricultural Economics*. Himalaya Publishing House.

### **Supplementary Reading**

A Rudra .1982.*Indian Agricultural Economics-Myth and realities*. New Delhi: Allied publishers.

P.C. Bansil. 1977. *Agricultural Problems in India*. Intl Book Distributors. 2 edition.

### **Module – IV**

Agricultural performance of Kerala – Trends in agricultural growth – Land reforms– Shift in cropping pattern – Group farming – Lease land farming – Current problems of the agricultural sector – farm size – productivity relationships – labour absorption and gender issues in agricultural services– Distribution of gains – Technological changes – Indigenous practices – Bio-technological practices – Organic farming practices in the state – Sustainable agriculture – Emerging constraints and prospects of agricultural development in Kerala, since the floods and covid-19 pandemic.

### **Essential Reading**

M. A. Oommen. 2009 *Kerala Economy Since Independence*. Oxford & IBH Publishing Co.

B.A. Prakash 1994(Ed).*Kerala Economy Problems and Prospects*. New Delhi: Sage Publications.

M. A. Oommen (Ed).1999 *Rethinking Development-Kerala's Development Experience – II*. Institute of Social Science, Concept Publishing Co.

B. A. Prakash. 1999 (Ed).*Kerala's Economic Development, Performance and Problems in the Post Liberalization Period*. New Delhi:Sage Publications.

Karunakaran. N, “Economic and environmental impacts of changing cropping pattern: A Kerala experience”, *Indian Economic Journal*, Vol. 60, No. 4, pp:102-124, March 2013

Karunakaran. N, ”Shift to rubber cultivation and consequences on environment and food security in Kerala”, *Journal of Rural Development*, Vol. 32, No. 4, pp:395-408, October-December 2013

Karunakaran. N, *Crop Diversification for Sustainable Agriculture*, Pointer Publishers, Jaipur, India, January, 2015.

Srikumar Chattopadhyay and Richard W Franke .2006.*Causes of concern: land use change, Striving for sustainability, Environmental stress and Democratic initiatives in Kerala*. New Delhi: Concept Publishing Company.

Mohandas.M .2005.*Agricultural Development in Kerala; in Kerala Economy- Trajectories, Challenges and Implications* (Ed), by Rajasenan D and Gerald de Groot.

K.P.Mani .2009.*Cropping pattern in Kerala - spatial inter-temporal analysis. Kerala Economy: Trends during the post-reform period* (Ed), by Rajan K. New Delhi: Serials Publications.

Karunakaran N and Sadiq MS, “Socio economic aspect of organic farming practices for improving farmer’s income in some locations of Kerala, India”, *Bangladesh Journal of Agricultural Research*, Vol. 44, No. 3, pp:401-408, September 2019.

Sinitha Xavier, *Economics of Organic Farming in India* (Ed), Shanlax Publications, Madurai, India, August 2019

## **Supplementary Reading**

*Websites* of Agricultural Statistics, Agricultural Network Information Centre. State Planning Board.Planning Commission.

*Current articles* related to various modules in EPW. Indian Journal of Agricultural Economics, AERR, JRD, Agricultural Situations in India. Yojana and other referred journals.

## **DEVELOPMENT OF ECONOMIC IDEAS**

### **ELECTIVE COURSE**

### **COURSE CODE – MAECO02E08**

## **Aim & Objectives**

The course covers the development of major economic ideas from Mercantalism to modern economics and also the development of Indian economic thought from ancient to modern thoughts.

## **Learning Outcome**

The paper provides the students an in depth knowledge on the history of economic thought and create a bases for the formation of new economic ideas among the students.

## **Module - I**

Introduction: What is Economic thought - Definitions - Mercantilism –Major ideas of Mercantilists : Population, Interest, Wages, Production, Taxation. Physiocracy :Physiocratic doctrines : Natural Order, The Net Product, The circulation of wealth.

## **Essential Reading**

Eric Roll. 1953. *A History of Economic Thought*.Prentice Hall.

LH.Haney. 1913.*History of Economic Thought*. Macmillan Company.

J.P. Bell. 1967. *A History of Economic Thought*. Ronald Presss.

V.A. Schumpeter. 1994. *A History of Economic Analysis*.Routledge.

O.H. Taylor. 2011. *A History of Economic Thought*.Literary Licensing.

Robert Lekachman. 1959. *A History of Economic Ideas*. Harper.

P.C. Newman . 1952.*History of Economic Doctrines*. Prentice Hall.

Gide &Rist. 1949. *A History of Economic Thought*. Harrap and Company Ltd.

Alexander Gray. 1956.*Development of Economic Doctrines*. Great Britain:

Northumberland Press Ltd.

## **Supplementary Reading**

H.W. Spiegel. 1971. *The Growth of Economic Thought*. Durham.NC: Duke University Press.

T. Negishi. 1994. *The History of Economics: Collected Essays*.Vol. II. Aldershot. UK: Edward Elgar.

J. Niehans.1990. *A History of Economic Theory: Classic contributions-1720-1890*. Baltimore: Johns Hopkins University Press.

R.V. Eagly. 1984. *The Structure of Classical Economic Theory*. New York: Oxford University Press.

J. Appleby. 1978. *Economic Thought and Ideology in Seventeenth Century England* Princeton: Princeton University Press.

## **Module- 2**

The Classical School : Adam Smith : Division of labour - Naturalism and optimism - Economic Liberty - Theory of Value - Theory of Distribution -on wages, on profit, on rent - Canons of taxation - Productive and unproductive labour - Theory of capital, economic development. David Ricardo :Theories of Value, Distribution, Wages, Profit, Foreign Trade, Money, Theory of Economic Development. T.R. Malthus : Theory of population, Malthusian Controversy of Market Glut. J.B. Say :Scope of Political Economy - Law of Market. Jeremy Bentham:The Systems J.S. Mill: Mill's Socialist Programme. Von Thunen : Price, Distribution.

### **Essential Reading**

Eric Roll. 1953. *A History of Economic Thought*.Prentice Hall.

LH.Haney. 1913.*History of Economic Thought*. Macmillan Company.

J.P. Bell. 1967. *A History of Economic Thought*. Ronald Press.

V.A. Schumpeter. 1994. *A History of Economic Analysis*.Routledge.

O.H. Taylor. 2011. *A History of Economic Thought*.Literary Licensing.

Robert Lekachman. 1959. *A History of Economic Ideas*. Harper.

P.C. Newman . 1952.*History of Economic Doctrines*. Prentice Hall.

Gide &Rist. 1949. *A History of Economic Thought*. Harrap and Company Ltd.

Alexander Gray. 1956.*Development of Economic Doctrines*. Great Britain:

Northumberland Press Ltd..

### **Supplementary Reading**

T. Negishi. 1994. *The History of Economics: Collected Essays*.Vol. II. Aldershot. UK: Edward Elgar.

J. Niehans.1990. *A History of Economic Theory: Classic contributions-1720-1890*. Baltimore: Johns Hopkins University Press.

R.V. Eagly. 1984. *The Structure of Classical Economic Theory*. New York: Oxford University Press.

J. Appleby. 1978. *Economic Thought and Ideology in Seventeenth Century England* Princeton: Princeton University Press.

## **Module - 3**

Critics of Classics : The Nationalist critics : Muller, Frederich List, Historical Critics : William Roscher, Gustav Schmoller. The British School : Walter Bagehot - Socialist Critics : St. Simon, Sismondi, Robert Owen, Charles Fourier, Louis Blanc, Joseph Proudhon, State Socialists : Karl Robertus. Ferdinand Lassals, Scientific Socialists : Karl Marx - Materialistic Interpretation of History, Dialectical Materialism - Theory of Surplus Value. Theory of Economic Development.Frederich Engels Karl Kautsky and Rosa Luxenberg, Rudolf Hilferding, V.I. Lenin. Neo-Classicals : Subjective School : Karl Menger, Von Wieser and Bohn Bawerk, Marginalists/Mathematical School,

Heimann Gossen, Jevons, Walras, Gustav Cassel, Vilfredo Pareto, J.B. Clark, Knut Wicksell, Wicksteed, Alfred Marshall, A.C. Pigou, Irving Fisher, Institutionalism Thorstein Veblen, J.R. Commons, W.C. Mitchell. Modern Economists; J.M. Keynes, Post Keynesians, Milton Friedman.

### **Essential Reading**

- Eric Roll. 1953. *A History of Economic Thought*. Prentice Hall.
- L.H. Haney. 1913. *History of Economic Thought*. Macmillan Company.
- J.P. Bell. 1967. *A History of Economic Thought*. Ronald Press.
- O.H. Taylor. 2011. *A History of Economic Thought*. Literary Licensing.
- Robert Lekachman. 1959. *A History of Economic Ideas*. Harper.
- P.C. Newman . 1952. *History of Economic Doctrines*. Prentice Hall.
- Gide & Rist. 1949. *A History of Economic Thought*. Harrap and Company Ltd.
- Alexander Gray. 1956. *Development of Economic Doctrines*. Great Britain: Northumberland Press Ltd.
- Karl Marx. 1972. *Theory of Surplus Value (Part -3)*. Lawrence & Wishart,

### **Supplementary Reading**

- H.W. Spiegel. 1971. *The Growth of Economic Thought*. Durham, NC: Duke University Press.
- T. Negishi. 1994. *The History of Economics: Collected Essays*. Vol. II. Aldershot. UK: Edward Elgar.
- P. Deane. 1978. *The Evolution of Economic Ideas*. Cambridge. UK: Cambridge University Press.
- M. Blaug. 1986. *Great Economists Before Keynes*. Cambridge. UK: Cambridge University Press.
- R. Backhouse. 1985. *A History of Modern Economic Analysis*. Oxford: Blackwell.
- R. Backhouse. 1988. *Economists and the Economy: The Evolution of Economic Ideas, 1600 to the Present Day*. New Brunswick: Transaction.
- I. Rima. 1967. *Development of Economic Analysis*. Homewood, Ill. R. D. Irwin.

## **Module - 4**

Indian Economic Thought : Ancient Economic Thought : Koutilya, Modern Economic Thought – Dadabai Naoroji, M.G. Ranade, Mahatma Gandhi, Ambedkar and Nehru.

### **Essential Reading**

- Ajit K. Dasgupta. 1993. *History of Indian Economic Thought*. London: Routledge.
- Roger Boesche. 2002. *The First Great Political Realist- Koutilya and His Arthashastra*. New York: Lexington Books.
- M.K. Gandhi. *Collected Works (3 Volumes)*
- O.P. Misra. 1995. *Economic Thought of Gandhi and Nehru- A Comparative Analysis*. New

Delhi:M.D. Publication Pvt. Ltd.

Bhimrao Ramji Ambedkar.1979.*Babasaheb Ambedkar, Writings and Speeches, Volume 19*.Education Department, Government of Maharashtra.

Arvind D Karmarkar. 1974.*Economic Thought in Modern India: Themes in Indian Economic Thinking and Analysis Since 1870 to Present Day*.University of California: J.S.S. Institute of Economic Research.

O.P.Brahmachary. 1995.*Economic Ideas of Mahadev Govind Ranade- Relevance Under New Economic Policies of India*. New Delhi: Deep and Deep Publications.

### **Supplementary Reading**

*Routledge Hand book of the History of Global Economic Thought*.edited by Vincent Barnett. Oxon: Routledge.

Brandon Dupont. 2017. *The History of Economic Ideas-Economic Thought in Contemporary Context*. New York: Routledge.

M.L.Dantwala.1947.*Economic Ideology of Nehru*.EPW.

## **PROJECT FORMULATION AND EVALUATION ELECTIVE COURSE COURSE CODE - MAECO04E13**

### **Course Objectives**

This course will provide insights into the capital budgeting structure of an economy, how it operates, starting from the planning phase to the review, why economic problems occur and the reasons why policy makers make the decisions. This course is designed to provide economic knowledge and skills necessary to make well-informed business and accounting decisions. It will also introduce various portfolio planning tools and techniques to facilitate investment decision making practices.

### **Course Outcome**

Students will get theoretical tools and practical experience necessary for the appraisal of investment projects and programmes. Students will gain knowledge in concepts, advantages and drawbacks of each of the main approaches used in project management.

### **Module – 1**

Project formulation and analysis - nature and scope - project analysis, an overview – capital expenditures - phases of capital budgeting - levels of decision making - facets of project analysis- key issues in project analysis - objectives of capital budgeting - resource allocation, criteria ,tools, approaches and issues - generation and screening of project ideas - scouting for project ideas

### **Essential Reading**

Prasanna Chandra.1993. *Financial Management - Theory and Practice*.New Delhi : Tata McGraw Hill.



Prasanna Chandra.1995. *Projects, Planning, Analysis, Selection Implementation and Review*.New Delhi : Tata McGraw Hill Publishing Co.  
 Brealey, R. & S. Myers. 1991. *Principles of Corporate Finance*. New York: McGraw Hill.  
 Dasgupta, Partha, Amartya Sen and Stephen Marglin. 1972. *Guidelines for ProjectEvaluation*.  
 New Delhi ; Oxford & IBH.  
 J. Cvitanic and Zapatero F .2004. *Introduction to Economics and Mathematics ofFinancial Markets*.London : MIT Press, Cambridge.

### **Supplementary Reading**

E. J. Elton and M.J. Gruber. 1995.*Modern Portfolio Theory and Investment Analysis*. London : Wiley.  
 Lutz, F. 8& Lutz.1951 *The Theory of Investment of the firm*. Princeton University Press.

### **Module – II**

Project analysis and evaluation - market and demand analysis - methods of demand forecasting - qualitative, time series, and casual methods - technical analysis materials and inputs- product mix - plant capacity - project charts and layouts – work schedule - financial analysis -project cost - sources of finance - estimates - cost of production - break-even point - cash flow statements - balance sheets - Appraisal of projects- Preparation of project proposals

### **Essential Reading**

Bussey L.E.1978. *The Economic Analysis of Industrial Projects*.Englewood: Prentice Hall.  
 Eschenbach, Ted, Lynn E. Bussey, Neal A. Lewis, Joseph C. Hartman .2015.  
*EconomicAnalysis of Industrial Projects*.Oxford University Press.  
 Esty, Benjamin .2003. *Modern Project Finance: A Casebook*. John Wiley & Sons.  
 Finnerty, John D. 2007. *Project Financing: asset based financial engineering*. 2nd edJohn Wiley & sons.

### **Supplementary Reading**

Ghattas, R.G. and Sandra L.McKee, 2003.*Practical Project Management*. Pearson.  
 Haley, C.W. and L.D. Schall.*The Theory of Financial Decisions*.New York : McGrawHill.  
 Kasor, Shrutika .2003. *Project Management*.New Delhi; Sumit Enterprises.  
 Little I.M.D. and J.A Mirrlees. 1974. *Project Appraisal and Planning for Developing Countrie.*,London : Hienemann Educational Books.

### **Module – III**

Measuring project cash flows - components - biases in cash flow C estimation - time value of money - cost of capital - basic concepts, premises and rationale - cost of capital in practice -appraisal criteria - net present value, benefit cost ratio - internal rate of return - payback period -accounting rate of return - assessment of various methods – risk analysis - types and measures of project risk - Sensitivity analysis –Scenario analysis- Simulation analysis - Decision tree analysis- firm risk and market risk

### **Essential Reading**

Pearce, DW and CA Nash .1981.*The social Appraisal of Projects*. Macmillan.  
 Pitale, R.L. 1987. *Project Appraisal Techniques*. New Delhi: Oxford and IBH  
 Masse, P. 1962.*Optimal Investment Decisions : Rules of Action and Criteria for Choice*.  
 Englewood: Prentice Hall.

### **Supplementary Reading**

Mikkelsen, Britha. 2005. *Methods for Development Work and Research*. New Delhi :Sage Publications.

Mize J.H. & J.G. Cox, *Essentials of Simulation*.England : Prentice-Hall.

#### **Module –IV**

Special decision situations - choice between mutually exclusive projects - determination of economic life- inflation and capital budgeting - social cost benefit analysis - multiple projects and constraints- project dependence- capital rationing-method of ranking - options and flexibility-qualitative factors- Project Management - network techniques of project management – PERT and CPM - network cost system - Critical path analysis - project review -performance evaluation.

#### **Essential Reading**

Charnes.A & W.W. Cooper. 1961. *Management Models and Industrial Applications of Linear Programming*. New York: John Wiley & Sons.

William J. Baumol. 1978. *Economic Theory and Operations Analysis*. Englewood: Prentice Hall.

Ajith K. Dasgupta & D.W. Pearce.1987. *Cost Benefit Analysis*. London: Macmillan ELBS.

Cleland, David I., 1995. *Project Management: Strategic, Design and Implementation*.New Delhi: McGraw Hill.

Gass, S.I.1969. *Linear Programming: Methods and Applications*. New York: McGrawHill.

Miller R.W.1963. *Schedule Cost and Profit Control with PERT*. New York. McGrawHill.

Mishan, EJ .1977.*Cost-Benefit Analysis*.Second edition. London: George Allen &Unwin.

Moder, J.J. and C.R. Philips. 1964. *Project Management with CPM and PERT*. NewYork: Reinhold Publishing Corporation.

#### **Supplementary Reading**

David A. Dubofsky and Thomas W. Miller .2003.*Derivatives: Valuation and RiskManagement*. OUP.

Z. Bodie, A. Kane and A.J. Marcus .2004. *Investments*. London: Irwin McGraw Hill.

Bruce Tuckman .2002. *Fixed Income Securities*. Willey Finance.

J. C. Hull .2004. *Options, Futures and other Derivatives*. New Jersey: Prentice- Hall.

Govt. of India.*Planning Commission Manual Project Appraisal: Industries(various years)*

UNIDO, 1978 *Guidelines for practical project appraisal*.

#### **Journals:**

*Economic & Political Weekly*, Bombay

*Commerce*

*Financial Management*, Winter and Summer

*Business today*

*Journal of Finance*

*Indian Journal of Accounting*

*Chartered Accountant*, Journal of CA's Association

**BEHAVIOURAL ECONOMICS  
ELECTIVE COURSE  
COURSE CODE: MAECO04E15**

**Course Objectives**

This course emphasis on theoretical and empirical applications of behavioural concepts like (i) preferences (time and risk preferences, reference dependence, and social preferences), (ii) beliefs and learning (overconfidence, projection bias, and attribution bias), and (iii) decision-making (cognition, attention, framing, and persuasion), as well as (iv) market reactions to such deviations. Applications of behavioural economics will cover a wide range of fields, including labour and public economics, industrial organization, health economics, finance, and development economics.

The main course objectives are as follows:

- 1) To equip students with Basic and advanced knowledge in theories of Behavioural Economics
- 2) To familiarise the students with various aspects of applied Behavioural Economics
- 3) To make the students capable of addressing and solving the issues in the society and the economy by acquiring greater insight in the behaviour of various economic agents and institutions

**Course Outcome**

- 1) Students will get exposure to the frontier of empirical research in Behavioural Economics
- 2) Students will learn how to critically assess a rapidly evolving literature and how to develop and present a research proposal, as well as designing novel ideas related to Research in Behavioural Economics
- 3) Learn how to test (Behavioural) economic theory using field experiments and non-experimental data
- 4) Skill development in students catering to the needs of the industry and policy makers

**Module I: Introduction**

Behavioural economics - History and evolution- Relation with other disciplines- Objectives, and scope- themes and methodology of behavioural economics- concepts- Motivation and personality - Perception, learning and attitude -Limited information processing -Economic expectation, emotions and wellbeing

**Essential Reading**

Thaler, Richard H (2016). *"Behavioral Economics: Past, Present, and Future"*. American Economic Review.

Thaler, Richard H.; Mullainathan, Sendhil (2008). *"Behavioral Economics"*. In David R. Henderson (ed.). *Concise Encyclopedia of Economics* (2nd ed.).

Hogarth, R. M.; Reder, M. W. (1987). *"Rational Choice: The Contrast between Economic and Psychology"*. Chicago: University of Chicago Press.

Shleifer, Andrei (1999). *"Inefficient Markets: An Introduction to Behavioral Finance"*. New York: Oxford University Press.

**Supplementary Reading**

Hogarth, R. M.; Reder, M. W. (1987). *"Rational Choice: The Contrast between Economics and Psychology"*. Chicago: University of Chicago Press.

Kahneman, Daniel; Tversky, Amos (1979). *"Prospect Theory: An Analysis of Decision under*

*Risk*". *Econometrica*.

Gerrit Ando Antonides (1991). "*Psychology in Economics and business*". Springer Science Business Media

Rob Rinyard, Wiley (2018), "*Economic Psychology*" (ed) , chapter 16

Alan Lewis (2008). "*The Cambridge Handbook of Psychology and Economic Behaviour*", (Edt.), Cambridge University Press.

Robert L. Leahy (2003). "*Psychology and the Economic Mind Cognitive Processes & Conceptualization*", Springer Publishing Company.

Stefan Heidl (2016). "*Philosophical Problems of Behavioural Economics*", Routledge.

David De Cremer, Marcel Zeelenberg and J. Keith Murnighan (edt) (2012). "*Social Psychology and Economics*" , Psychology Press.

## **Module II: Microeconomic Foundation of Behavioural economics**

Values, preferences and choice- believes- heuristic and biases- state dependent preferences –bounded rationality - prospect theory - dependent preference -mental accounting- Inter temporal choice - social preferences - Nudges and Happiness.

### **Essential Reading**

Nick Wilkinson, Matthias Klaes( 2012). "*An introduction to behavioural economics*" Palgrave McMillan

Michelle Beddeley (2019). "*Behavioural Economics and Finance*". Routledge.

### **Supplementary Reading**

Alexander Rajko (2012). "*Behaviour economics and business ethics- interrelation and application*"

Routledge, London, Philosophical problems of behavioural economics by Steffan Heidl, Routledge, 1996

Michael S Zouboulakis (1997). "*Varieties of modern economic rationality – from Adam Smith to Contemporary Behavioural and evolutionary economists*", Routledge.

J.L. Buxter (1993). "*Behavioural foundations of economics*" by, McMillan Press

## **Module III: Behavioural macro economics**

Neo-Keynesian Rational Expectation model- role of rational expectation in business cycle and labour market equilibrium- the role of monetary policy and the determination of asset prices- Animal Spirits and economic decisions

### **Essential Reading**

Paul De Grauwe and Yeumei Ji (2019). "*Behavioural Macro Economics -Theory and Policy*, Oxford University Press.

Cunningham, Lawrence A.(2002). "*Behavioral Finance and Investor Governance*. Washington & Lee Law Review.

Diamond, Peter; Vartiainen, Hannu (2012). "*Behavioral Economics and Its Applications*". Princeton University Press.

Hens, Thorsten; Bachmann, Kremena (2008). "*Behavioural Finance for Private Bankin*". Wiley Finance Series.

### **Supplementary Reading**

Ayala and A. Palacio-Vera (2014) "*The Rational Expectations Hypothesis: An assessment from Popper's Philosophy*", [http://www.levyinstitute.org/pubs/wp\\_786.pdf](http://www.levyinstitute.org/pubs/wp_786.pdf)

Muth, J.F. (1961). "*Rational Expectations and the Theory of Price Movements*", *Econometrica*, 29(3), pp. 315-335.

S. Rebelo (2005) "*Real Business Cycles Models: Past, Present and Future*"

<http://www.kellogg.northwestern.edu/faculty/rebelo/htm/rbc.pdf>

R. Lucas (1995) “*Monetary Neutrality*”, Nobel Price Lecture ,  
[https://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/1995/lucas-lecture.pdf](https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1995/lucas-lecture.pdf)

A. Lo (2007) “*Efficient Markets Hypothesis*” in L. Blume and S. Durlauf, *The New Palgrave: A Dictionary of Economics*.

G. Akerlof, (2001), “*Behavioral Macroeconomics and Macroeconomic Behavior*”, Nobel Prize Lecture.

G. Akerlof and R. Shiller, (2009), “*Animal Spirits*”, Princeton University Press.

Lucas, Robert E., Jr. and Thomas J. Sargent,(1979) “*After Keynesian Macroeconomics,*” in Federal Reserve Bank of Boston

*After the Phillips Curve: Persistence of High Inflation and High Unemployment*, Conference Series, 1978.

Farmer, R.(1993), “*Macroeconomics of Self Fulfilling Prophecies*”, MIT press.

## **Module IV : Applied Behavioural Economics**

Behaviour economics on Welfare and Policy Analysis - Conceptualising and measuring welfare-saving, addiction and public good- economic development – health care- labour market-organisational behaviour.

### **Essential Reading**

Peter Diamond and Hannu Vartiainen (ed).(2012) “*Introduction to Behavioral Economics and Its Applications-*, Princeton University Press.

BD Bernheim, S DellaVigna, D Laibson(ed) (2019). “*Handbook of Behavioral Economics-Foundations and Applications -*, North Holland .

Sanjit Dhami (2020). “*The foundations of behavioural economics*”. Oxford.

Rodica Ianole (2016). “*Applied Behavioral Economics Research and Trends*”, IGI Global.

### **Supplementary Reading**

Loewenstein (1987) “*Anticipation and the Valuation of Delayed Consumption*”. *Economic Journal*, 97(387): 666— 684.

Brunnermeier, Markus, K., and Jonathan A. Parker (2005). “*Optimal Expectations.*” *American Economic Review*, 95(4): 1092-1118.

Kahneman and Tversky (1979) “*Prospect Theory: An Analysis of Decision Under Risk*”, *Econometrica*, 47(2): 263– 291.

List (2003) “*Does Market Experience Eliminate Market Anomalies?*”, *Quarterly Journal of Economics*, 118(1): 41– 71.

Koszegi and Rabin (2006), “*A Model of Reference-Dependent Preferences*”, *Quarterly Journal of Economics*, 121(4): 1133–1165.

Sydnor, Justin. 2010. “*(Over) insuring Modest Risks.*” *American Economic Journal: Applied Economics*, 2(4): 177-99

Charness and Rabin (2002) “*Understanding Social Preferences with Simple Tests*” *Quarterly Journal of Economics*, 117(3): 817–869.

Lazear, Edward P., Ulrike Malmendier, and Roberto A. Weber. (2012). “*Sorting in Experiments with Application to Social Preferences.*” *American Economic Journal: Applied Economics*, 4(1): 136-63.

DellaVigna, List, Malmendier. (2012). “*Testing for Altruism and Social Pressure in Charitable Giving*”. *Quarterly Journal of Economics*, 127(1): 1–56.

- Rabin (1993). “*Incorporating Fairness into Game Theory and Economics*”, American Economic Review, 83(5): 1281– 1302.
- Fehr and Gächter, (2000), “*Fairness and Retaliation: The Economics of Reciprocity*”, Journal of Economic Perspectives, 14(3): 159–181.
- Fehr, E. and Schmidt, K. (1999) “*A Theory of Fairness, Competition, and Cooperation*” The Quarterly Journal of Economics, 114(3): 817—868.
- Thaler, Richard H. (1988). "*Anomalies: The Ultimatum Game.*" Journal of Economic Perspectives, 2(4): 195-206.
- Tversky, A. and Kahneman, D. (1974) “*Judgment under Uncertainty: Heuristics and Biases*”, Science, 185(4): 1124– 1131.
- Kahneman, Daniel(2011) *Thinking, fast and slow*. Macmillan.

**GENDER ECONOMICS**  
**MULTI- DISCIPLINARY COURSE**  
**COURSE CODE : MAECO04 O 02**

**Aim & Objectives**

The programme aims to provide a firm understanding of economic and social processes that shape the contemporary global world and their gendered outcomes. It considers diverse analytical tools and theoretical approaches for the analysis of development and globalisation from a uniquely gendered perspective. Emphasis is placed on the analysis and theorisation of political, socio-economic, institutional and spatial aspects of change and inequality, particularly changes in labour, work and employment patterns, economic restructuring and critical policy issues among others. A series of case studies and interdisciplinary academic readings will link global and local issues and the lives of people across the globe. The main objective of the course is to introduce the students to major concepts used in gender analysis. The course intends to equip the students with broad principles and theories of gender and development.

**Learning Outcome**

Students will get a good understanding of how economic theory and methods are applied in gender studies; this paper provide better understanding of various issues related to gender development with special emphasis to Indian context and how theory and practices comes in conflict while addressing various gender dynamics. The programme will be of great intellectual value for understanding gender issues in a global and transnational context, or seeking to contribute to policy-making, or to do further research in this field.

**Module 1: Introduction to Gender studies**

Concepts of Gender and Sex – Gender perspective of Body- Social construction of Feminity and Masculinity-importance of women and gender studies- race and intersectionality –Patrilineal and Matrilineal systems and its relevance to present Indian society-Gender and economic development – Measures of Gender development- World and India-Analysis of gender relations for case study evaluation and research

**Essential Reading**

Boserup, Ester(1970),*Woman's Role in Economic Development* / Ester Boserup; new introduction by Nazneen Kanji, Su Fee Tan and Camilla Toulmin.-- London: Earthscan, (re print-2007)

Sen,Suvarna ,(2006),Gender and Development, ICFAI University Press, Hyderabad

Dutta,Nandita and,Sumitra Jha(2014),Women and Rural Development ,Pacific Books Internat, Delhi

Dutta,Nandita and,Sumitra Jha(2014),Women and Agricultural Development ,Pacific Book,New Delhi.

Dutta,Nandita and,Sumitra Jha(2014),Women Social Work and Social Welfare ,Pacific Books International,New Delhi.

Jitendra Ahirrao(2013), Entrepreneurship and Rural Women in India ,New Century Publications,New Delhi.

Desai,N and M.KRaj (1974), Women and Society in India ,SNDT University ,Mumbai

### **Supplementary Reading**

Ahmed S, (2017) Living a Feminist Life, Duke University Press, Durham

Benería, L.(2003) Gender, Development & Globalisation. Economics As If All People Mattered. London & NY: Routledge;

Butler, J (1999) Gender Trouble, Routledge, New York & London

Butler J, (1997) the Psychic Life of Power, Stanford University Press, Stanford

Eadie,Jo (ed) (2004) Sexuality. The Essential Glossary, publisher Hodder Education

Evans et al, (2015) The Sage Handbook of Feminist Theory Sage, London

Evans M and Williams C, (2012) Gender: The Key Concepts, Routledge, London

Foucault M (1990) The History of Sexuality Vol 1 Penguin, Houndsmills

### **Module-II : Gender Dynamics**

Gender dynamics -reproduction - age structure- mortality rates –Inter state variations in sex ratio- causes of declining sex ratio- Measurement of fertility and its control -theories of power and the relations between the psyche and the social- gender representation-nation and rights- theories of gender roles and stereotypes- Gender neutrality- Gender and Community- Contemporary issues of gender and caste-Gender based violence-Rape-Honour killing-Prostitution

#### ***Essential Reading***

UNRISD,(2004) Gender Equality; Striving for Justice in an Unequal World,UNRISD,France

Harilal,K.N.,Kanji,N.,Jeyaranjan,J.,Eapen,M.and Swaminathan,P (2006) Power in Global Value Chain; Implications of cashew nut industry in India ,IIED

ILO,(2002) Women and Men in the Informal Economy; A statistical Picture,ILO

A.Venkateswarlu, et al. (2013) ,Dimensions of Female Sex Ratio.;Interstate Variations in India ,Serials Publications,New Delhi.

### **Supplementary Reading**

Hemmings C, Why Stories Matter: (2011) The Political Grammar of Feminist Theory, Duke University Press, Durham

Hill Collins P and Bilge S, (2016) Intersectionality, Polity, London

Mohanty C,(2003) Feminism without Borders Decolonizing Theory ,Practicing Solidarity, Duke University Press, Durham

Weigman R, (2012) Object Lessons, Duke University Press, Durham

### **Module-III : Women and Labour Market**

Female work participation - Wage differentials and its determinants- Gender and Education-Skill, Productivity, Efficiency -Impact of technology and modernization on women's work – global integration and uneven development - social, spatial and gender inequalities-global division of labour –care work and migration- Feminist movements - feminist struggles over recognition, redistribution and representation -Women's participation in Decision making -Role of civil society –Role of N.G.O's in empowering women

### ***Essential Reading***

Krishna Raj .M, Sudarshan.R.M, and Shariff.A,(1999) ,Gender,Population and Development ,Oxford University Press,New Delhi

Seth .M,(2000)Women and Development ;The Indian Experience ,Sage Publications,New Delhi

Srinivasa.K, and A.Shroff (1998)India Towards population and Development Goals , OUP,New Delhi

Wazir,R,(2000),The Gender gap in Basic Education,;NGO's as change Agents,Sage Publications, Delhi

Sen,Amartya.(1990), “More than 100 million women are missing”Newyork Review of books,vol.37,No.20,1990.

### **Supplementary Reading**

Agarwal, B. (2016) Gender Challenges (Vol 1, 2 and 3). India: Oxford University Press.

Benería, L. Berik, G and Floro, M. (2015) Gender, Development and Globalization: Economics as if All people Mattered, London: Routledge. (2nd Edition).

Chant, S. (ed.) (2010) International Handbook of Gender and Poverty: Concepts, Research, Policy, Cheltenham: Edward Elgar.



Cook, S. and Kabeer, N. (2010) *Social Protection as Development Strategy*, London: Routledge.

Cornwall, A., Harrison, E. & Whitehead, A. (eds) (2007) *Feminisms in Development: contradictions, contestations, and challenges*, London: Zed Books.

Cornwall, A., Edstrom, J. and Greig, A. eds. (2011) *Men and Development: Politicising Masculinities*, London: Zed Books.

Devaki, J. and Elson, D. (2011) *Harvesting Feminist Knowledge for Public Policy*, IDRC, London: Sage

Escobar, A. (2011) *Encountering Development: The Making and Unmaking of the Third World*, Princeton University Press

Jaggar, A. (2014) *Gender and Global Justice*, Bristol: Polity

Kabeer, N. (2001) *The Power to Choose. Bangladeshi women and labour market decisions in London and Dhaka*, London: Verso.

Kabeer, N. (2003) *Gender Mainstreaming in Poverty Eradication and the Millennium Development Goals: a handbook for policy-makers and other stakeholders*, London: Commonwealth Secretariat.

Marchand, M. and Runyan, A. (2011) *Gender and Global Restructuring*, second edition London: Routledge.

Milanovic, B. (2016) *Global Inequality: A New Approach for the Age of Globalization*, Harvard: Harvard University Press

Mirchandani, K. (2012) *Phone Clones. Authenticity Work in the Transnational Service Economy*, Ithaca: ILR Press.

Ong, A. (2010) *Spirits of Resistance and capitalist Discipline*, 2nd Edition New York: Suny Press.

Patel, R. (2010) *Working the Night Shift. Women in India's Call Centres*, Stanford: University Press.

Perrons, D. (2004) *Globalization and Social Change*, London: Routledge.

Spierings, N. (2015) *Women's employment in Muslim countries: patterns of diversity*. Basingstoke, Hampshire: Palgrave Macmillan.

#### **Module IV : Social Security and Rights**

Measures for gender well being- Entitlements, ensuring economic independence and risk coverage, access to credit and insurance market- micro finance- Review of legislation for women- 73<sup>rd</sup> Amendment- Protection of property rights- gender quotas and collective action- Effectiveness of collective bargaining- schemes for safety net for women - Public and Private programmes to improve women's health- National policy for empowering women- International measures to protect women's rights- UN measures of Gender development- U.N Decade for women

### ***Essential Reading***

Govt. of India (1974), Towards equality-Report of the committee on the status of women in India ,Dept of Social Welfare,Ministry of Education and Social Welfare,New Delhi.

Govt.of India (2009), Gender Equality and Women Empowerment in India ,National Family Health Survey 2005-06 (NFHS-3),IIPS,Mumbai

Various issues of Economic and Political Weekly.(for e.g .John Mary .E.(1996)”Gender and Development in India EPW,31(47),PP 3071-77)

Sen,Sujatha ,(2012) Gender studies,Dorling Kindersely(India)Pvt.Ltd,New Delhi.

Pal,Manoranjan et .al (Ed)( 2011),Health,Nutritional Status and Role of women in India, Oxford University Press, New Delhi.

### **Supplementary Reading**

Selwyn, B. (2014) The Global Development Crisis, Cambridge: Polity Press.

Stiglitz, J. (2015) The Great Divide. Unequal Societies and What We Can Do About Them, London: Penguin.

Visvanathan, N. et.al. (2012) The Women, Gender and Development Reader, London: Zed Books.

Walby, S. (2009) Globalisation and inequalities: Complexity and contested modernities. London: SagePublicationsLtd.

Walby, S. (2011) The future of feminism. Cambridge: Polity Press.

<b>LIST OF MOOC COURSES UNDER SWAYAM PLATFORM</b>
<b>Indian Agricultural Development</b> By Dr. Praveen Kumar Jain   Indira Gandhi National Open University
<b>Economics of Health and Health Care</b> By Prof. Angan Sengupta   IIT Kanpur
<b>Health Research Fundamentals</b> By Multi Faculty   National Institute of Epidemiology
<b>Energy Economics And Policy</b> By Prof. Shyamasree Dasgupta   IIT Mandi
<b>Operations Research</b> By Prof. Kusumdeep   IIT Roorkee
<b>Operations Research</b> By Professor Bibhas C. Giri   Jadavpur University
<b>Mathematical Economics</b> By Sikha Ahmad,   Doon University, Dehradun,

**TS-1: Foundation Course In Tourism**

By Dr. Sonia Sharma & Dr. Tangjakhombi Akoijam | Indira Gandhi National Open University

**TS-2: Tourism Development Products**

By Dr. Arvind K Dubey & Dr. Paramita Suklabaidya | Indira Gandhi National Open University

## XVI: MODEL QUESTION PAPER

FIRST SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022  
ECONOMICS  
PAPER –I: MAECO01C01: MICRO ECONOMIC THEORY (CORE)  
TIME:THREEHOURS  
TOTAL MODULES:4  
MAXIMUM MARKS:60

### Part A:

Answer any five questions. (Eachquestioncarries3marks)

1. Examine the constant elasticity of demand function.
2. Explain risk averter
3. Explain Sweezy's kinked demand model of oligopoly.
4. What do you meant by capital and labour deepening technical progress?
5. Explain Baumol's sales revenue maximization model
6. What do you meant by externality?

(5 ×3= 15)

### Part B

Answer any three(Each question carries 5 marks)

7. Howcouldyoudeterminethefollowinglinearprogrammingproblembyusingsimplex Method?

$$\text{Maximize } Z=10X_1+X_2+2X_3$$

$$\text{S.T } X_1+X_2-2X_3\leq 10$$

$$4X_1+X_2+X_3\leq 20$$

$$X_1,X_2,X_3\geq 0$$

8. How would you prove LES?
9. If the used car market is a 'lemons' market, how would you expect the repair record of used cars that are sold to compare with there pair record of those not sold?
10. Howwouldyoprioritizemicroandmacroeconomicsandexplainthescopeofmicro economics?
11. State algebraically,explain and demonstrate, using appropriate diagrams, each of the

three conditions for Pareto optimality satisfied by a perfectly competitive economy.

(3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Critically evaluate Walrasian general equilibrium analysis
13. Assess New welfare economics
14. What conclusions can you draw the equilibrium of the multiproduct firm in terms of production possibility curve and Iso- revenue line?
15. How can the principal-agent model be used to explain why public enterprises, such as post offices, might pursue goals other than profit maximization?
16. Demonstrate Basic postulates of Sylos Labini limit pricing model

(3 × 10 = 30)

**FIRST SEMESTER M.A.ECONOMICS DEGREE EXAMINATION UNDER CBCSS 2022**

**PAPER- II: MAECO01C02: MACRO ECONOMIC THEORY (CORE)**

**TIME: THREE HOURS MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A:** Answer any five questions. (Each question carries 3 marks. 5 × 3 = 15)

1. Distinguish between GDP and GNP.
2. Explain simple Keynesian model
3. Explain the major types of unemployment
4. How does inflation affect the economy?
5. How exchange rate is determined under fixed and flexible exchange systems?
6. Explain M1, M2, M3 & M4

**Part B:** Answer any three. (Each question carries 5 marks. 3 × 5 = 15)

7. Distinguish between GDP and GNP. Suppose GDP is Rs. 10000. Domestic residents receive factor payments from abroad of Rs. 650. Foreigners receive Rs. 350 as factor payment from our country. Calculate the value of GNP.
8. Explain why IS curve is downward sloping.

9. What are the factors matters for economic growth? Explain why some countries are growing faster than others?
10. What are the economic impacts of inflation? Is inflation good or bad for a country?
11. Explain the major types of unemployment

**Part C:** Answer any three questions. (Each question carries 10 marks.  $3 \times 10 = 30$ )

12. Elaborate the major schools of macroeconomic thought and their contributions to the development of macroeconomics.
13. What is an investment demand schedule? What are the determinants of investment?
14. How do we measure unemployment and inflation? What is the present condition of unemployment and inflation in India?
15. How exchange rate is determined under fixed and flexible exchange systems? Explain how internal and external balances are met under fixed and flexible exchange rate systems.
16. Explain the relationship between the effectiveness of monetary policy and the interest elasticity of investment. Will monetary policy be more or less effective the higher the interest elasticity of investment demand? Explain the relationship between the effectiveness of fiscal policy and the interest elasticity of investment demand. Why do the two relationships differ?

**FIRST SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER –III :MAECO01C03: DEVELOPMENT ISSUES OF INDIAN ECONOMY**  
**-WITH SPECIAL REFERENCE TO KERALA**  
**(CORE)**

**TIME:THREEHOURS**  
**TOTAL MODULES:4**

**MAXIMUM MARKS: 60**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. Explain Trade balance.
2. Explain features of Neo-Liberalism.
3. Differentiate Growth v/sDevelopment.
4. Explain Industrial policy of 1991.
5. Explain Age structure of India'spopulation.
6. Explain Land reforms inKerala?

(5 ×3= 15)

**Part B**

**Answer any three**  
**(Each question carries 5 marks)**

7. How would you explain the changing interrelationship between agriculture andindustry.
8. Examine the demographic changes inKerala.
9. Examine the BOP position and problems ofIndia.
10. Identify the nature and level of food availability inIndia.
11. Examine the New Agriculture Policy and Agrarian Crisis inIndia.

(3 ×5= 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Critically examine the land reforms in India
13. How would you explain the features of Washington Consensus.
14. Examine the nature of higher education in Kerala.
15. Analyze the changing trends in poverty in India.
16. Evaluate the socio- economic development programmes of India.

(3 × 10 = 30)



**FIRST SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**ECONOMICS**

**PAPER-IV:QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS**

**CORE COURSE**

**COURSE CODE – MAECO01C04**

**TIME:THREE HOURS**

**MAXIMUM MARKS:60**

**TOTAL MODULES:4**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. State any two important properties of determinant of a matrix
2. Distinguish between multiple and partial correlation
3. Define an impossible event
4. Write a short note on Pareto distribution
5. Explain central limit theorem
6. Explain Level of Significance

(5 × 3 = 15)

**Part B Answer any three**

**(Each question carries 5 marks)**

7. Find Rank correlation co-efficient for the following data

X	4	9	6	2	5	3	10	8
Y	10	50	15	30	35	20	40	25

8. Two unbiased dice are thrown find the probability that

- a) Both the dice shows the same number
- b) Total of the number on the dice is greater than 10

9. Distinguish between point and interval estimation with examples

10. Following table gives the number of units produced by two workers A and B for a number of days. Test the variance by using F test at 5 % level of significance.

A	34	28	42	37	44
B	36	33	48	38	50

11. Apply Chi- Square and test the relationship between Economic status and financial Autonomy at 5% significance level

Status/ Autonomy	Rich	Poor	
Autonomous	12	10	
Not Autonomous	16	6	

(3 × 5 = 15)

Part C

Answer any three questions. (Each question carries 10 marks)

12. Solve the Linear Equation by using Matrix Algebra  $X_1 - X_2 = 3$

$$X_2 + X_3 = 2 \quad X_3 - X_1 = 1$$

13. Find regression equation of Y on X and X on Y by using the following data

X	41	53	54	55	43
Y	45	51	48	43	39

14. Fit a normal distribution to the following table

x	5	15	25	35	45
f	2	10	30	15	3

15. Construct an ANOVA table and state your conclusion using the following data and also Check is there any significant difference in items A, B and C

	A	B	C
	14	14	18
	16	13	16
	18	15	16

16. Briefly the importance of statistical estimation in Economics and critically evaluate the desirable properties of a good estimates (3 × 10 = 30)

**SECOND SEMESTER M.A.ECONOMICS DEGREE EXAMINATION UNDER CBCSS 2022**

**PAPER –V: MAECO02C05: INTERNATIONAL ECONOMICS (CORE)**

**TIME: THREE HOURS MAXIMUM MARKS:60**

**TOTAL MODULES: 4**

**Part A:** Answer any five questions. (Each question carries 3 marks.  $5 \times 3 = 15$ )

1. What does the Heckscher–Ohlin theory postulate?
2. What is meant by an ad valorem, a specific, and a compound tariff?
3. What is meant by economic integration, a preferential trade arrangement, a free trade area, a customs union, a common market and an economic union?
4. What is purchasing-power parity theory, and relative purchasing-power parity theory?
5. What is the J-curve effect?
6. What is the natural level of output?

**Part B:** Answer any three. (Each question carries 5 marks.  $3 \times 5 = 15$ )

7. What is meant by gains from exchange and gains from specialization?
8. What is meant by the Leontief paradox? What are some possible explanations of the paradox?
9. What are the technical, administrative, and other nontariff barriers to trade? How do they restrict trade? What is the importance of these nontariff trade barriers relative to tariff barriers?
10. What is meant by the exchange rate? How is the equilibrium exchange rate determined under a flexible exchange rate system?
11. What is the Marshall–Lerner condition for a stable foreign exchange market? for an unstable market? for a depreciation to leave the nation's balance of payments unchanged?

**Part C:** Answer any three questions. (Each question carries 10 marks.  $3 \times 10 = 30$ )

12. What is meant by factor-intensity reversal? How is this related to the elasticity of substitution of factors in production? Why would the prevalence of factor reversal lead to rejection of the H–O theorem and the factor–price equalization theorem? What were the results of empirical tests on the prevalence of factor reversal in the real world?
13. What are the technical, administrative, and other nontariff barriers to trade? How do they restrict trade? What is the importance of these nontariff trade barriers relative to tariff barriers?
15. What determines the value of the exchange rate and its change under a flexible exchange

rate system according to the monetary approach? How does a managed floating exchange rate system compare with a flexible and fixed exchange rate system from the point of view of the monetary approach?

16. How can fiscal and monetary policies be used to achieve full employment and external balance under fixed exchange rates and limited international capital mobility? with high international capital mobility?

**SECOND SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022  
ECONOMICS**

**PAPER –VI: MAECO02E01: RESEARCH METHODOLOGY  
(ELECTIVE)**

**TIME: THREE HOURS**

**TOTAL MODULES: 4**

**MAXIMUM MARKS: 60**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. Explain research gap?
2. Explain survey of literature?
3. What is case study method?
4. Explain bibliography?
5. What is objectivity in social science research?
6. Differentiate research method and research methodology?

(5 × 3 = 15)

**Part B Answer any three  
(Each question carries 5 marks)**

7. Evaluate the relation between theory and research.
8. Identify the features of interdisciplinary research.
9. How would you explain the types of research design?
10. Examine the sample survey methods.
11. Identify the methods of data collection.

(3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Examine the features of writing of report.

13. Assess the benefits and drawbacks of secondary data collection methods.
14. How would you explain data analysis and techniques?
15. Identify research and its types.
16. Examine steps in research process. (3 × 10 = 30)

**SECOND SEMESTER M.A. ECONOMICS DEGREE EXAMINATION UNDER CBCSS 2022**

**PAPER –VII: MAECO02E02: PUBLIC ECONOMICS (ELECTIVE)**

**TIME: THREE HOURS MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A:** Answer any five questions. (Each question carries 3 marks. 5 × 3 = 15)

1. State the fundamental theorems of welfare economics.
2. Differentiate pure public goods with pure private goods.
3. Explain Lindahl's equilibrium.
4. Explain the concept of Impact, Incidence and Shifting of Tax.
5. What is a lump-sum tax?
6. What are the canons of public expenditure?

**Part B:** Answer any three. (Each question carries 5 marks. 3 × 5 = 15)

7. Explain the basic conditions of Pareto efficiency.
8. Explain the uniform, progressive, proportional and regressive taxation.
9. What are the implications of a government budget deficit or a budget surplus?
10. Explain the role of fiscal policy in stabilizing the economy.
11. What is a finance commission? State the functions of the finance commission.

**Part C:** Answer any three questions. (Each question carries 10 marks. 3 × 10 = 30)

12. What are market failures? Explain the six different conditions under which market fails?
13. Explain India's experience with Goods and Service Tax.
14. Evaluate FRBMA Act.
15. Examine fiscal decentralisation in India.

**FOURTH SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**ECONOMICS**

**PAPER–XV: ECONOMICSGROWTHANDDEVELOPMENT**

**ELECTIVECOURSE**

**COURSE CODE – MAECO04E06**

**TIME:THREEHOURS**

**MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A:**

**Answer any five questions. (Eachquestioncarries3marks)**

1. Define entitlementapproach.
2. Whatarethelimitationsofabig-pushtheoryinadevelopingeconomycontext?
3. Describe ‘goldenage.’
4. Define the age of massconsumption.
5. Distinguish between inward looking and outward lookingstrategies
6. Explain the contributions of GrameenBanks

(5 ×3= 15)

**Part B Answer any three(Each question carries 5 marks)**

7. Discuss the obstacles of economic development ofLDCs.
8. Explain the Myrdal’s strategies on economicdevelopment
9. Evaluate the decentralized planning experiences inKerala.
10. Discuss the developments of micro credit inIndia.
11. Evaluate Marxian theory of economicdevelopment

(3 ×5= 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Examine the salient features of modern economicgrowth
13. Discuss the role of international organizations in the development of third world countries.
14. EvaluatetheeffectsofGlobalisationandrecentpolicychangesonIndianagriculture sector
15. Explain the role of technology on India’s developmental experience during covid-19 period
16. Discussthemainfeaturesofclassicaltheoriesofeconomicdevelopment.

(3 ×10=30)

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER IX–MAECO03C06: ENVIRONMENTAL ECONOMICS (CORE)**

**TIME:THREEHOURS**

**MAXIMUM MARKS:60**

**TOTAL MODULES:4**

**Part A:**

**Answer any five questions.**

**Examine the law of en(Each question carries 3 marks)**

1. Explain resourcetaxonomy
2. What do you mean byexternality
3. Examine the law ofentropy
4. Explain in situ and ex situ cultivation
5. Explain the material balance model
6. What is watershed management?(5 ×3= 15)

**Part B Answer any three**  
**(Each question carries 5 marks)**

7. How environmental Kuznets curve established the relationship between income and level of pollution in aneconomy
8. Howcanyouestablishtheinterfacebetweenenvironmentandeconomy?
9. How will you tackle the challenges of determining the intensity and quantum of pollution?
10. Analyseathetotaleconomicvalueofatropicalforestwithatypicalexamples.
11. Identifythesituationandcontextinwhichhedonicpricingmethodissuedforvaluing theenvironment.(3 ×5= 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. How the value of an environmental good is estimated under surrogate market methods and simulated market methods.

13. Assess the basic causes of market failure and also assess approach towards market failure.

14. Critically evaluate how direct economic instrument can control environmental pollution.

15. How far EIA will be an effective tool in making the project eco-friendly?

16. Assess the impact of climate change on agriculture and development (3 × 10 = 30)

**THIRD SEMESTER M.A.ECONOMICS DEGREE EXAMINATION UNDER CBCSS 2022**

**PAPER –X: MAECO03C07: POLITICAL ECONOMY (CORE)**

**TIME: THREE HOURS**

**MAXIMUM MARKS: 60 TOTAL**

**MODULES: 4**

**Part A:** Answer any five questions. (Each question carries 3 marks. 5 × 3 = 15)

1. What are the main features of the mercantilist system?
2. Explain the theory behind Marx's theory of the falling rate of profit?
3. Three principal tenets in the Keynesian description of the working of the economy
4. Explain Becker's economic approach to human behavior
5. Explain Neoliberalism
6. What is financialisation?

**Part B:** Answer any three. (Each question carries 5 marks. 3 × 5 = 15)

7. Describe Adam Smith's theory of distribution?
8. What is a classical theory of value?
9. Summarize the most important points of the Communist Manifesto.
10. What was the 'neo-classical synthesis'?
11. Explain Rudolph Hilferding's ideas on Socialism, Freedom and Democracy

**Part C:** Answer any three questions. (Each question carries 10 marks. 3 × 10 = 30)

12. Discuss the development of classical political economy as normal science.
13. In what ways was the Marginal Revolution a true break with the past?



14. Consider the role of markets and the state in different approaches to understanding capitalist economy. a
15. Discuss the rise of the finance led capitalism

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER –XI : ECONOMETRICS**  
**CORE COURSE**  
**COURSE CODE – MAECO03C08**  
**TIME:THREE HOURS** **MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A: Answer any five questions. (Each question carries 3 marks)**

1. Explain Inertia.
2. State BLUE property
3. Explain Method of Pooling data
4. What is identification trap?
5. Explain Lag Scheme
6. What do you mean by co-integration (5 × 3 = 15)

**Part B Answer any three**

**(Each question carries 5 marks)**

7. Briefly explain the features of stochastic term
8. Discuss the methods of detecting Auto correlation
9. Explain ILS method with the help of Keynesian model,  $C = \alpha + \beta Y + U$  and  $Y = C + I$
10. Briefly discuss about the use of dummy variables in econometrics
11. Explain different tests used in checking stationarity of time series data (3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Estimate the capital adjustment model, Stock of capital ( $Z$ ) =  $f(\text{Income}, Y)$

Z	50	50	75	75	80	90	100	120	115	90
Y	100	100	150	180	186	157	132	100	150	100

13. Explain the role of 'lag' in Economics with the help of lagged models.
14. Discuss the importance of econometric modelling in experimental research
15. Write an essay on Identification and identify the following demand and supply model for money

Moneydemand

$$M_d = 2 Y_t + 5 R_t + P_t + U_1$$

Moneysupply

$$M_s = 3 Y_t + U_2$$

16. Briefly discuss about the role of Time series data in Economic research (3 × 10 = 30)

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER XII: MAECO03E04: POPULATION STUDIES (ELECTIVE)**  
**TIME:THREE HOURS MAXIMUM MARKS:60**  
**TOTAL MODULES:4**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. Explain the types of demography.
2. What do you mean by population projection?
3. Examine the determinants of sex structure of population
4. Explain the techniques of measuring urban population.
5. How mortality is measured?
6. Explain the concept of Demographic Transition (5 × 3 = 15)

**Part B Answer any three (Each question carries 5 marks)**

7. State the factors affecting fertility and mortality in developing countries.
8. Make out the problems associated with ageing.
9. 'Population as a limit to growth', population as an ultimate source' - Discuss.
10. Exemplify the types and limitations of population projection
11. Point up the importance of Family welfare programmes (3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Assess the major objectives of National Population Policy 2000.
13. Illustrate the Methods of population data
14. Discuss the implications of out-migration from Kerala.
15. State the measures of fertility.
16. Assess the techniques used for measuring population projection

(3 × 10 = 30)

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**ECONOMICS**

**PAPER : AGRICULTURAL ECONOMICS**

**ELECTIVE COURSE**

**COURSE CODE – MAECO03E05**

**TIME: THREE HOURS**

**MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. Explain major functions of national commission of farmers
2. Explain lease land farming
3. Explain cobweb theorem
4. Explain important factors determining agriculture productivity
5. What do you mean by organic farming?
6. Explain future trading (5 × 3 = 15)

**Part B Answer any three**

**(Each question carries 5 marks)**

7. Discuss about Inter-relationship between agriculture and industry
8. Explain various types of farming and cropping pattern adopted in India
9. Evaluate present system of agricultural marketing in India
10. Evaluate Impact of agricultural development on environment
11. Discuss about various issues faced by Indian farmers (3 × 5 = 15)

**Part C Answer any three questions. (Each question carries 10 marks)**

12. Briefly discuss a theories of agricultural development
13. Critically evaluate various agriculture policies adopted in India
14. Briefly discuss about Emerging constraints and prospects of agricultural development in Kerala.
15. Critically evaluate impact of WTO-Agreements on Agriculture

16. Explain definition and scope of Agriculture Economics in Indian context (3 × 10 = 30)

**FOURTH SEMESTER M.A. DEGREE EXAMINATION UNDER CBCSS 2022  
ECONOMICS**

**PAPER –XIII: MAECO04C09: FINANCIAL INSTITUTIONS AND MARKETS.  
(CORE)**

**TIME: THREE HOURS**

**MAXIMUM MARKS: 60**

**TOTAL MODULES: 4**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. Explain the merits of certificate of deposit market?
2. Explain offshore banking?
3. Explain financial innovation?
4. Explain mobile banking?
5. Explain debt securitization?
6. Explain importance of stock exchanges?

(5 × 3 = 15)

**Part B Answer any three  
(Each question carries 5 marks)**

7. Identify the features of money market.
8. Examine the growth and role of NBFIs.
9. Analyse the financial system and economic development.
10. Examine merits and demerits of plastic money.
11. Identify the importance of digital technology in banking sector. (3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Critically examine the financial sector reforms.
13. Examine the features of disinvestment in India.
14. How would you explain the indicators of financial development.
15. Identify the present state of mutual funds in India.
16. How would you explain the features of new generation banks.

(3 × 10 = 30)

**SECOND SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**ECONOMICS**

**PAPER –VIII: MATHEMATICAL ECONOMICS**

**ELECTIVE COURSE**

**COURSECODE–MAECO02E03**

**TIME:THREE HOURS**

**MAXIMUMMARKS:60**

**TOTAL MODULES:4**

**Part A:**

**Answer any five questions. (Eachquestioncarries3marks)**

1. Distinguish between closed and open input outputmodel
2. Explain the nature of utility function
3. State the important features of Stackelberg equilibrium
4. Write a note on VES Production function
5. Distinguish between maximin and minimaxstrategy
6. Explain the concept bounded rationality

(5 ×3= 15)

**Part B Answer any three(Each question carries 5 marks)**

7. Discuss the kinked demand curve solution where  $P_1 = 100 - 2q_1 - q_2$        $C_1 = 2.5q_1^2$   
 $P_2 = 95 - q_1 - 3q_2$        $C_2 = 25q_2$
8. Explain Hawkin-Simon condition
9. Derive the ordinary demand function and state the important properties
10. State the important features of CES production function
11. Find the second order derivatives for the following function

a)  $Z = x^2 + y^2$

b)  $Z = x^2 y^2$

(3 ×5= 15)

**Part C Answer any three questions. (Eachquestioncarries10marks)**

12. Derive Cost as a function of output.
13. Determine the total output for the following input-output matrix, A and the final demand vector, D

$$\begin{matrix} 0.2 & 0.1 & 0.1 & 100 \end{matrix}$$

$$A = \begin{matrix} 0.2 & 0.5 & 0.2 \\ 0.1 & 0.2 & 0.3 \end{matrix} \quad D = \begin{matrix} 300 \\ 500 \end{matrix}$$

14. Solve the LPP by using Simplex method

$$\text{Max } Z = 3x_1 + 4x_2$$

$$\text{s. t. } \begin{matrix} 2x_1 + 5x_2 < 24 \\ 4x_1 + 2x_2 < 16 \end{matrix}$$

$$x_1 > 0, x_2 > 0$$

15. Briefly discuss the role of Differential calculus in Economics.  
 16. Write an essay on Non- Collusive Oligopoly Models

(3 × 10 = 30)

**FOURTH SEMESTER M.A. DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER 15: OPERATIONS RESEARCH FOR ECONOMIC ANALYSIS (ELECTIVE)**  
**TIME: THREE HOURS** **MAXIMUM MARKS: 60**  
**TOTAL MODULES: 4**

**Part A:**

**Answer any five questions. (Each question carries 3 marks)**

1. What do you mean by construction of networks?
2. Write a note on non linear programming.
3. Prepare dummy transportation problem.
4. Briefly explain dominance property.
5. What is decision tree?
6. Write down the dual of the following problem

$$\text{Maximize } Z = X_1 + 6X_2$$

$$\text{Subject to } \quad \quad \quad X_1 + 3X_2 \geq 2$$

$$X_1 + 3X_2 \leq 3 \quad X_1, X_2 \geq 0$$

(5 × 3 = 15)

**Part B Answer any three (Each question carries 5 marks)**

7. Describe the methods used for decision making under uncertainty
8. Explain constrained maxima and minima
9. Solve the transportation problem by using Vogel's method and check the solution for optimality.

Source:	1	2	3	4	Supply
	21	16	15	3	11
	17	18	14	23	13
	32	27	18	41	19
Demand		6	10	12	15

10. What is a model? State the different types of models used in operations research.
11. A firm owner is seriously considering of a farm well. In the past, only 70% of wells drilled were successful at 200 feet depth in the area. Moreover on finding no water at 200 ft, some persons drilled it further up to 250 feet but only 20% struck water at 250 ft. The prevailing cost of drilling is Rs.50 per ft. The farm owner has estimated that in case he does not get his own wells he will have to pay Rs.15000 over the next 10 years, in PV term, to buy water from the neighbour. The following decisions can be optimal 1) Do not drill any well 2) Drill up to 200 feet 3) If no water is found at 200 ft, drill further up to 250 ft. Draw an appropriate decision tree and determine the farm owner's strategy under EMV approach. (3 × 5 = 15)

### Part C

**Answer any three questions. (Each question carries 10 marks)**

12. Explain the relevance of mathematical formulation of linear programming
13. Table below gives the schedule of welding activities in an assembly shop.

Activity	Duration (days)
0-1	2
1-2	4
0-3	2
2-5	1
3-4	2
4-5	5
5-6	3

- a. Draw the network diagram
- b. Calculate TE, TL values, EST, LST, EFT, LFT and total floats
- c. Mark the critical path and find total project duration.

14. Solve the following problem by using simplex method.

$$\text{Maximize } Z = 6X_1 + 4X_2$$



Subject to  $-2X_1 + X_2 \leq 2$   $X_1 - X_2 \leq 2$

$$3X_1 + 2X_2 \leq 9$$

$$X_1, X_2 \geq 0$$

15. Analyze the saddle point theorem. And how game problem is solved.

16. Explain the general structure of the Transportation problem and state the adequacy of method for solving Assignment problem. (3 × 10 = 30)

**SECOND SEMESTER M.A. DEGREE EXAMINATION UNDER CBCSS 2022**  
**ECONOMICS**  
**PAPER : MAECO02E08: DEVELOPMENT OF ECONOMIC IDEAS (ELECTIVE)**  
**TIME: THREE HOURS                      MAXIMUM MARKS: 60**  
**TOTAL MODULES: 4**

**Part A: Answer any five questions. (Each question carries 3 marks)**

1. Explain mercantilism
2. What is economic thought?
3. Explain Mill's socialist programme
4. Explain scope of political economy
5. Explain capital accumulation
6. Explain Friedman's restatement of quantity theory (5 × 3 = 15)

**Part B Answer any three (Each question carries 5 marks)**

7. Evaluate the contribution of Adam Smith to the history of economic thought
8. Discuss the features of Marxism
9. Discuss the economic thought of Mahatma Gandhi
10. Explain economic thought of Ragnar Nurkse
11. Physiocracy is the science of natural order. Explain (3 × 5 = 15)

**Part C**

**Answer any three questions. (Each question carries 10 marks)**

12. Throw light on the circumstances leading to the rise and fall of capitalism. Evaluate
13. Discuss main contribution of marchandist to economic thought
14. Evaluate Malthusian theory of population

15. Assess Ricardian theory of distribution

16. Analyze Koutilya's economic thought.(3 ×10= 30)

**PROJECT FORMULATION AND EVALUATION (ELECTIVE COURSE)  
COURSE CODE - MAECO04E13**

**TIME:THREE HOURS    MAXIMUMMARKS:60 TOTAL MODULES:4**

**Part A:**

**Answer any five questions. (Eachquestioncarries3marks)**

1. Explain Capital Budgeting
2. Explain urgency criterion
3. Why situational analysis is conducted?
4. What is a work schedule? What purpose does it serve?
5. Why money has time value
6. Explain the concept Project review(5 ×3= 15)

**Part B Answer any three**

**(Each question carries 5 marks)**

7. What are the sources of positive NPV
8. What are the factors that determine selection of suitable location for capital project
9. Discuss about the various time series projection methods
10. Explain the importance of Research and Development in generation of project ideas.
11. Write a short essay on diversification

(3 ×5= 15)

**Part C**

**Answer any three questions. (Eachquestioncarries10marks)**

12. Critically evaluate nature of public projects in India
13. Discuss about the special decision situation in capital budgeting
14. Explain the various methods used in Risk Analysis
15. Write an essay on Social Cost Benefit Analysis with suitable example.
16. Enumerate the basic criteria for selecting the best project opportunities.

(3 ×10= 30)

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**ECONOMICS**

**PAPER :MAECO03001: HEALTH ECONOMICS**

Multi-disciplinary/Inter-disciplinary soft core Courses/Mooc Course/Open Courses

**TIME:THREE HOURS      MAXIMUM MARKS:60**

**TOTAL MODULES:4**

**Part A:**

**Answer any five questions. (Eachquestioncarries3marks)**

1. What is government role in health care services?
2. Define health economics
3. Explain the objectives of healthcare
4. What is health care management?
5. What is health policy?
6. Explain equity in healthcare.(5 ×3= 15)

**Part B Answer any three(Each question carries 5 marks)**

7. Examine the basic concepts of health economics and the relevance in healthcare delivery.
8. Illustrate resources and technology available in health care sector.
9. Discuss unique nature of input output process of healthcare.
10. Describe the nature and scope of health economics
11. Prioritize public private partnership in health care delivery model and what are its merits and demerits in health care delivery?(3 ×5= 15)

**Part C Answer any three questions. (Eachquestioncarries10marks)**

12. Discuss roles of government providing health care services in India and explain various health care policies.
13. Assess health care management strategies available in India.
14. Howwillyoufindoutandmeasurethedemandandsupplyforhealthcareproductin India.
15. Whether public private partnership is essential in Indian health care industry? Substantiate your views.
16. Assess health care development in Kerala.

(3 ×10= 30)

**THIRD SEMESTER M.A.DEGREE EXAMINATION UNDER CBCSS 2022**

**MAECO03O02: GENDER ECONOMICS**

Multi-disciplinary/Inter-disciplinary soft core Courses/Mooc Course/Open Courses

**TIME:THREE HOURS      MAXIMUMMARKS:60**

**TOTAL MODULES:4**

**Part A:Answer any five questions.  
(Each question carries 3 marks)**

1. Explain Gender
2. Distinguish between Feminity and Masculinity
3. Explain collective bargaining
4. Explain gender roles and stereotypes
5. What do you meant by gender audit?
6. Distinguish between paid and unpaid work(5 ×3= 15)

**Part B Answer any three(Each question carries 5 marks)**

7. Distinguish between Patrilineal and Matrilineal systems and its relevance to present Indian society
8. Explain in detail about the various criteria that you would use to assess gender development
9. Explain the role of community for gender empowerment
10. Briefly discuss about the causes of declining sex ratio
11. Evaluate the effects of education and knowledge on women's participation in decision making (3 ×5= 15)

**Part C**

**Answer any three questions. (Eachquestioncarries10marks)**

12. Explain definition ,scope and various concepts of gender economics
13. Briefly discuss about various issues faced by women in workplace
14. Discuss about National policy for empowering women
15. Brieflyexplainvariousinternationalmeasurestoprotectwomen's rights
16. Critically evaluate role of technology and modernization on women's education and access to employment (3×10=30)

