

**MAR ATHANASIUS COLLEGE (AUTONOMOUS)  
KOTHAMANGALAM, KERALA 686 666**

**NAAC Accredited 'A+' Grade Institution**

**Email: [mac@macollege.in](mailto:mac@macollege.in)**

**[www.macollege.in](http://www.macollege.in)**



**SCHEME AND SYLLABUS  
FOR  
POST GRADUATE PROGRAMME  
UNDER CREDIT SEMESTER SYSTEM  
MAC-PG-CSS 2020  
IN  
M.A. ECONOMICS**

**EFFECTIVE FROM THE ACADEMIC YEAR 2020-2021  
BOARD OF STUDIES IN ECONOMICS (PG)**



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## ACADEMIC COUNCIL

### COMPOSITION – With Effect From 01-06-2020

**Chairperson** : **Dr. Shanti. A. Avirah**  
Principal  
Mar Athanasius College (Autonomous), Kothamangalam.

**Experts/Academicians from outside the college representing such areas as Industry, Commerce, Law, Education, Medicine, Engineering, Sciences etc.**

1. **Dr. Winny Varghese**  
Secretary  
Mar Athanasius College Association  
Kothamangalam.
2. **Prof. Dr. V.N. Rajasekharan Pillai**  
Former Vice-Chairman  
University Grants Commission,  
New Delhi.
3. **Dr. R.K. Chauhan**  
Former Vice-Chancellor, Lingaya's University,  
Faridabad, Haryana -121002
4. **Dr. Sheela Ramachandran**  
Pro-Chancellor,  
Atmiya University  
Rajkot.
5. **Prof. Kuruvilla Joseph**  
Senior Professor and Dean,  
Indian Institute of Space Science and Technology (IIST),  
Department of Space, Govt. of India, Valiyamala, Thiruvananthapuram.
6. **Dr. M.C. Dileep Kumar**  
Former Vice Chancellor  
Sree Sankaracharya Sanskrit University  
Kalady, Kerala, India.
7. **Dr. Mathew. K.**  
Principal  
Mar Athanasius College of Engineering,  
Kothamangalam, Kerala - 686 666
8. **Adv. George Jacob**  
Senior Advocate  
High Court of Kerala  
Ernakulam.

**Nominees of the university not less than Professors**

9. **Dr. Biju Pushpan**  
SAS SNDP Yogam College  
Konni.
10. **Dr. Suma Mary Scharia**  
UC College  
Aluva.
11. **Dr. V.B. Nishi**  
Associate Professor  
Sree Sankara College, Kalady.

**Member Secretary**

12. **Dr. M.S.Vijayakumary**  
Dean – Academics  
Mar Athanasius College (Autonomous)  
Kothamangalam.

**Four teachers of the college representing different categories of teaching staff by rotation on the basis of seniority of service in the college.**

13. **Dr. Bino Sebastian. V** (Controller of Examinations)
14. **Dr. Manju Kurian**, Asst. Professor, Department of Chemistry
15. **Dr. Smitha Thankachan**, Asst. Professor, Department of Physics
16. **Dr. Asha Mathai**, Asst. Professor, Department of Malayalam

**Heads of the Departments**

17. Dr. Jayamma Francis, Head, Department of Chemistry
18. Dr. Mini Varghese, Head, Department of Hindi
19. Ms. Shiny John, Head, Department of Computer Science
20. Dr. Igy George, Head, Department of Economics
21. Dr. Rajesh.K. Thumbakara, Head, Department of Mathematics
22. Dr. Aji Abraham, Head, Department of Botany
23. Dr. Selven S., Head, Department of Zoology

24. Dr. Deepa. S, Head, Department of Physics
25. Dr. Aswathy Balachandran, Head, Department of English
26. Dr. Diana Ann Issac, Head, Department of Commerce
27. Ms. Seena John, Head, Department of Malayalam
28. Ms. Diana Mathews, Head, Department of Sociology
29. Ms. Sudha. V, Head, Department of Statistics
30. Dr. Jani Chungath, Head, Department of History
31. Sri. Haary Benny Chettiamkudiyil, Head, Department of Physical Education
32. Ms. Shari Sadasivan, Head, Department of Marketing and International Business
33. Dr. Julie Jacob, Head, Department of Biochemistry
34. Ms. Nivya Mariyam Paul, Head, Department of Microbiology
35. Ms. Jaya Vinny Eappen, Head, Department of Biotechnology
36. Ms. Shalini Binu, Head, Department of Actuarial Science
37. Ms. Simi. C.V, Head, Post Graduate Department of History
38. Ms. Sari Thomas, Head, Post Graduate Department of Statistics
39. Ms. Sheeba Stephen, Head, Department of B.Com Model III - Tax Procedure and Practice
40. Ms. Dilmol Varghese, Head, Post Graduate Department of Zoology
41. Ms. Bibin Paul, Head, Post Graduate Department of Sociology

## PREFACE

Economics is playing a pivotal role in the newly emerging world economic order. Its application to enhance human welfare has become even more vital. The global economic environment has become increasingly complex and poses a myriad of new challenges for policy and data analysts and professionals in all fields. The ability to respond to rapid changes in this environment requires a pellucid understanding of the economic forces that affect economic outcomes. Meticulous economic policy analysis requires practitioners who can make use of the most current theoretical academic literature, as well as do empirical and econometric analysis using the latest approaches and methods.

The M.A. Economics program provides a technical and rigorous approach to the study of economics. The course seeks to cultivate the analytical and critical skills relevant to economic development, in particular, those needed to assess alternative approaches to policy. It provides rigorous quantitative training that development work now requires, helping students develop the ability to access, process and interpret a variety of data. It aims to provide the research tools and approaches needed for those who wish to proceed to doctoral research in Economics. The present curriculum also contains teaching and evaluation methodology so that students are well trained and equipped with latest knowledge and skills to cope with the burgeoning challenges. The goal of the economics program is to train students to think analytically about social issues, and as such provide a solid foundation for further study and careers in economics as well as for multiple other pursuits.

Mar Athanasius College has been instrumental in providing knowledge to thousands of students in the realm of Higher Education. The educational framework of the institution creates an atmosphere to flourish arts, science and research. The institution has crossed another milestone on its path towards academic excellence when UGC granted autonomous status to the college in March 2016. Accordingly the PG Syllabus and the Program Structure of M A Economics was restructured by the duly constituted Board of Studies in Economics (PG) in line with the directions received from the Curriculum Development Committee constituted by the institution, subject to the Regulations and Guidelines of the Mahatma Gandhi University, Kottayam, the parent university, and also in accordance with the UGC rules.

The Master of Arts program in Economics is designed for students who wish to prepare themselves for careers in the field of economics or improve their knowledge of economic theory and its applications. While restructuring the syllabi and curriculum, enough space was provided for the students for choice of the course and self-learning. The M. A. Economics Program of the college under autonomy would be “Postgraduate Programs under the Credit Semester System (CSS-PG)”. Total credit of the Program has been fixed as 80. The duration of the Program, type of courses, and number of Credits of each course would remain at par with that of the parent university so as not to affect the existing work load.

In 2019, M G University revised the P G Syllabus for M.A. Economics. Based on the University guidelines, a proposal for the revision of the existing P G Syllabus and program structure of Mar Athanasius College (Autonomous) is prepared compiling the creative suggestions and proposals derived from the members of Board of Studies incorporating methodologies for innovative teaching and evaluation techniques. The revised syllabus is prepared and submitted for the approval of the Academic Council, keeping in view the objectives of the college, interest of the stakeholders and national requirement.

Dr. Winny Varghese, Secretary, Mar Athanasius College Association, Kothamangalam, whose quest for innovation in academic system to bring the institution to excellence, is the motivating factor behind the revision of the PG Syllabus and program structure. I take this opportunity to thank him wholeheartedly for all the support, guidance and inspiration. This task is the fulfilment of long cherished dream of the great visionary late Prof. M.P. Varghese, the founder Secretary of Mar Athanasius College Association and the first Head of the Department of Economics. We bow to the memories.

Dr. Shanti Avirah, the Principal, Mar Athanasius College (Autonomous), Kothamangalam, was instrumental in the timely completion of all works related to revision of the syllabus. I thank her for the kind cooperation and constant encouragement. Dr. M. S. Vijayakumary, Dean of Academics was the constant inspiration and guiding force behind the revision of the syllabus, I thank her for all the support and timely help.

For the first time, P G Department of Economics of Mar Athanasius College revised the PG Syllabus incorporating the provisions of revised Bloom’s taxonomy. I am indebted to Prof (Dr) K.P. Mani and Dr. S. Harikumar for all the efforts taken to revise the syllabus by

becoming a part of it. Also I extend thanks to Dr. Vijayamohanan Pillai for his timely help.

I take this opportunity to specially thank Sri. Santhosh T Varghese, Associate Professor, Maharajas College, Ernakulum, Member Board of Studies, M G University for his support.

I am greatly, indebted to Prof. K.C. Sankaranarayanan, former Head of the Department of Applied Economics, CUSAT, Dr. Rajesh K Thumbakara, HOD, Department of Mathematics, Ms. Sudha V, HOD, Department of Statistics, and all my colleagues, Dr. K. Manjula former HOD, Dr. Eldhose A M, Dr. Sheeba Abraham and Ms. Puthuma Joy as members of Board of studies who, from the very beginning, coordinated all the activities leading to the successful culmination of revising the syllabus. I thankfully place on record my sincere gratitude to all the retired faculties of the department, Prof. (late) Achamma Mani, Prof.(late) C K Itty, Prof. N A Varghese, Prof. M K Babu, Prof. M I john, Prof. K C Paulose, Prof. Jolly John, Prof. (late) P K Mathew, Dr. Sheela Varghese and Dr. Leena George and Dr. Chithra J for their timely advice and guidance during this exercise.

Dr. Igy George

**Chairman**

**Board of Studies in Economics (PG)**





**LIST OF POST GRADUATE PROGRAMMES IN  
MAR ATHANASIUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM  
(2020 Admission onwards)**

<b>SL. NO.</b>	<b>PROGRAMME</b>	<b>DEGREE</b>	<b>FACULTY</b>
1	ENGLISH	M.A.	LANGUAGE AND LITERATURE
2	ECONOMICS	M.A.	SOCIAL SCIENCES
3	SOCIOLOGY	M.A.	SOCIAL SCIENCES
4	HISTORY	M.A.	SOCIAL SCIENCES
5	MATHEMATICS	M.Sc	SCIENCE
6	CHEMISTRY	M.Sc	SCIENCE
7	PHYSICS	M.Sc	SCIENCE
8	BOTANY	M.Sc	SCIENCE
9	STATISTICS	M.Sc	SCIENCE
10	ZOOLOGY	M.Sc	SCIENCE
11	BIOCHEMISTRY	M.Sc	SCIENCE
12	BIOTECHNOLOGY	M.Sc	SCIENCE
13	MICROBIOLOGY	M.Sc	SCIENCE
14	ACTUARIAL SCIENCE	M.Sc	SCIENCE
15	COMMERCE (SPECIALISATION – FINANCE AND TAXATION)	M.Com	COMMERCE
16	COMMERCE (SPECIALISATION - MARKETING AND INTERNATIONAL BUSINESS)	M.Com	COMMERCE



**REGULATIONS OF THE POSTGRADUATE PROGRAMMES**  
**UNDER CREDIT SEMESTER SYSTEM**  
**MAC-PG-CSS - 2020**  
**(2020 Admission onwards)**

**1. SHORT TITLE**

- 1.1 These Regulations shall be called “Mar Athanasius College (Autonomous) Regulations (2020) governing Postgraduate Programmes under the Credit Semester System (MAC-PG-CSS-2020)”.
- 1.2 These Regulations shall come into force from the Academic Year 2020-2021.

**2. SCOPE**

- 2.1 The regulations provided herein shall apply to all Regular Postgraduate (PG) Programmes, M.A. /M.Sc. /M.Com. conducted by Mar Athanasius College (Autonomous) with effect from the academic year 2020-2021 admission onwards.

**3. DEFINITIONS**

- 3.1 ‘**Academic Committee**’ means the Committee constituted by the Principal under this regulation to monitor the running of the Post-Graduate programmes under the Credit Semester System (MAC-PG-CSS2020).
- 3.2 ‘**Academic Week**’ is a unit of five working days in which distribution of work is organized from day one to day five, with five contact hours of one hour duration on each day. A sequence of 18 such academic weeks constitutes a semester.
- 3.3 ‘**Audit Course**’ is a course for which no credits are awarded.
- 3.4 ‘**CE**’ means **Continuous Evaluation (Internal Evaluation)**
- 3.5 ‘**College Co-ordinator**’ means a teacher from the college nominated by the Principal to look into the matters relating to MAC-PG-CSS2020 for programmes conducted in the College.

- 3.6 **‘Comprehensive Viva-Voce’** means the oral examinations conducted by the appointed examiners and shall cover all courses of study undergone by a student for the programme.
- 3.7 **‘Common Course’** is a core course which is included in more than one programme with the same course code.
- 3.8 **‘Core Course’** means a course that the student admitted to a particular programme must successfully complete to receive the Degree and which cannot be substituted by any other course.
- 3.9 **‘Course’** means a segment of subject matter to be covered in a semester. Each Course is to be designed variously under lectures / tutorials / laboratory or fieldwork / seminar / project / practical training / assignments/evaluation etc., to meet effective teaching and learning needs.
- 3.10 **‘Course Code’** means a unique alpha numeric code assigned to each course of a programme.
- 3.11 **‘Course Credit’** One credit of the course is defined as a minimum of one hour lecture / minimum of 2 hours lab/field work per week for 18 weeks in a Semester. The course will be considered as completed only by conducting the final examination.
- 3.12 **‘Course Teacher’** means the teacher of the institution in charge of the course offered in the programme.
- 3.13 **‘Credit (Cr)’** of a course is a numerical value which depicts the measure of the weekly unit of work assigned for that course in a semester.
- 3.14 **‘Credit Point(CP)’** of a course is the value obtained by multiplying the grade point (GP) by the Credit (Cr) of the course **CP=GP x Cr**.
- 3.15 **‘Cumulative Grade Point Average(CGPA)’** is the value obtained by dividing the sum of credit points in all the courses taken by the student for the entire programme by the total number of credits and shall be rounded off to two decimal places. CGPA determines the overall performance of a student at the end of a programme.
- (CGPA = Total CP obtained/ Total credits of the programme)**

- 3.16 **‘Department’** means any teaching Department offering a programme of study in the institution.
- 3.17 **‘Department Council’** means the body of all teachers of a Department in a College.
- 3.18 **‘Dissertation’** means a long document on a particular subject in connection with the project /research/ field work etc.
- 3.19 **‘Duration of Programme’** means the period of time required for the conduct of the programme. The duration of post-graduate programme shall be 4 semesters spread over two academic years.
- 3.20 **‘Elective Course’** means a course, which can be substituted, by equivalent course from the same subject.
- 3.21 **‘Elective Group’** means a group consisting of elective courses for the programme.
- 3.22 **‘ESE’ means End Semester Evaluation (External Evaluation).**
- 3.23 **‘Evaluation’** is the process by which the knowledge acquired by the student is quantified as per the criteria detailed in these regulations.
- 3.24 **External Examiner** is the teacher appointed from other colleges for the valuation of courses of study undergone by the student in a college. The external examiner shall be appointed by the college.
- 3.25 **‘Faculty Advisor’** is a teacher nominated by a Department Council to coordinate the continuous evaluation and other academic activities undertaken in the Department.
- 3.26 **‘Grace Grade Points’** means grade points awarded to course(s), recognition of the students' meritorious achievements in NSS/ Sports/ Arts and cultural activities etc.
- 3.27 **‘Grade Point’ (GP)** Each letter grade is assigned a Grade point (GP) which is an integer indicating the numerical equivalent of the broad level of performance of a student in a course.

- 3.28 **‘Grade Point Average(GPA)’** is an index of the performance of a student in a course. It is obtained by dividing the sum of the weighted grade point obtained in the course by the sum of the weights of Course.  $(GPA = \frac{\sum WGP}{\sum W})$
- 3.29 **‘Improvement Course’** is a course registered by a student for improving his performance in that particular course.
- 3.30 **‘Internal Examiner’** is a teacher nominated by the department concerned to conduct internal evaluation.
- 3.31 **‘Letter Grade’** or **‘Grade’** for a course is a letter symbol (A+, A, B+, B, C+, C, D) which indicates the broad level of performance of a student for a course.
- 3.32 **MAC-PG-CSS2020 means Mar Athanasius College Regulations Governing Post Graduate programmes under Credit Semester System, 2020.**
- 3.33 **‘Parent Department’** means the Department which offers a particular postgraduate programme.
- 3.34 **‘Plagiarism’** is the unreferenced use of other authors’ material in dissertations and is a serious academic offence.
- 3.35 **‘Programme’** means the entire course of study and Examinations.
- 3.36 **‘Project’** is a core course in a programme. It means a regular project work with stated credits on which the student undergoes a project under the supervision of a teacher in the parent department/ any appropriate research centre in order to submit a dissertation on the project work as specified. It allows students to work more autonomously to construct their own learning and culminates in realistic, student-generated products or findings.
- 3.37 **‘Repeat Course’** is a course to complete the programme in an earlier registration.
- 3.38 **‘Semester’** means a term consisting of a minimum of 90 working days, inclusive of examination, distributed over a minimum of 18 weeks of 5 working days each.

- 3.39 **‘Seminar’** means a lecture given by the student on a selected topic and expected to train the student in self-study, collection of relevant matter from various resources, editing, document writing and presentation.
- 3.40 **‘Semester Grade Point Average(SGPA)’** is the value obtained by dividing the sum of credit points (CP) obtained by the student in the various courses taken in a semester by the total number of credits for the course in that semester. The SGPA shall be rounded off to two decimal places. SGPA determines the overall performance of a student at the end of a semester (SGPA = Total CP obtained in the semester / Total Credits for the semester).
- 3.41 **‘Tutorial’** means a class to provide an opportunity to interact with students at their individual level to identify the strength and weakness of individual students.
- 3.42 **‘Weight’** is a numeric measure assigned to the assessment units of various components of a course of study.
- 3.43 **University** means Mahatma Gandhi University Kottayam to which the college is affiliated.
- 3.44 **‘Weighted Grade Point (WGP)’** is grade points multiplied by weight. (WGP=GP×W)
- 3.45 **‘Weighted Grade Point Average (WGPA)’** is an index of the performance of a student in a course. It is obtained by dividing the sum of the weighted grade points by the sum of the weights. WGPA shall be obtained for CE (Continuous Evaluation) and ESE (End Semester Evaluation) separately and then the combined WGPA shall be obtained for each course.

#### 4. ACADEMIC COMMITTEE

4.1. **There shall be an Academic Committee constituted by the Principal to Manage and monitor the working of MAC-PG-CSS - 2020.**

4.2. **The Committee consists of:**

1. Principal
2. Dean, Administration
3. Dean, Academics
4. IQAC Coordinator
5. Controller of Examinations
6. One Faculty each representing Arts, Science, Commerce, Languages, and Self Financing Programmes



## 5. PROGRAMME STRUCTURE

5.1 Students shall be admitted to post graduate programme under the various Faculties. The programme shall include three types of courses, Core Courses, Elective Courses and Common core courses. There shall be a project with dissertation and comprehensive viva-voce as core courses for all programmes. The programme shall also include assignments / seminars/ practical's etc.

5.2 No regular student shall register for more than 25 credits and less than 16 credits per semester unless otherwise specified. The total minimum credits, required for completing a PG programme is 80.

### 5.3. Elective Courses and Groups

**5.3.1** There shall be various groups of Programme Elective courses for a Programme such as Group A, Group B etc. for the choice of students subject to the availability of facility and infrastructure in the institution and the selected group shall be the subject of specialization of the programme.

**5.3.2** The elective courses shall be either in fourth semester or distributed among third and fourth semesters. There may be various groups of Elective courses (three elective courses in each group) for a programme such as Group A, Group B etc. for the choice of students, subject to the availability of facility and infrastructure in the institution.

**5.3.3** The selection of courses from different elective groups is not permitted.

**5.3.4** The elective groups selected for the various Programmes shall be intimated to the Controller of Examinations within two weeks of commencement of the semester in which the elective courses are offered. The elective group selected for the students who are admitted in a particular academic year for various programmes shall not be changed.

### 5.4 Project Work

**5.4.1.** Project work shall be completed in accordance with the guidelines given in the curriculum.

**5.4.2** Project work shall be carried out under the supervision of a teacher of the department concerned.

- 5.4.3.** A candidate may, however, in certain cases be permitted to work on the project in an Industrial/Research Organization on the recommendation of the supervising teacher.
- 5.4.4** There shall be an internal assessment and external assessment for the project work.
- 5.4.5.** The Project work shall be evaluated based on the presentation of the project work done by the student, the dissertation submitted and the viva-voce on the project.
- 5.4.6** The external evaluation of project work shall be conducted by two external examiners from different colleges and an internal examiner from the college concerned.
- 5.4.7** The final Grade of the project (External) shall be calculated by taking the average of the Weighted Grade Points given by the two external examiners and the internal examiner.
- 5.5 **Assignments:** Every student shall submit at least one assignment as an internal component for each course.
- 5.6 **Seminar Lecture:** Every PG student shall deliver one seminar lecture as an Internal component for every course with a weightage of two. The seminar lecture is expected to train the student in self-study, collection of relevant matter from the various resources, editing, document writing and presentation.
- 5.7 **Test Papers(Internal):**Every PG student shall undergo at least two class tests as an internal component for every course with a weight one each. The best two shall be taken for awarding the grade for class tests.
- 5.8. **No courses shall have more than 5 credits unless otherwise specified.**
- 5.9. **Comprehensive Viva-Voce** -Comprehensive Viva-Voce shall be conducted at the end of fourth semester of the programme and its evaluation shall be conducted by the examiners of the project evaluation.
- 5.9.1.** Comprehensive Viva-Voce shall cover questions from all courses in the Programme.
- 5.9.2.** There shall be an internal assessment and an external assessment for the Comprehensive Viva-Voce.

## **6. ATTENDANCE**

- 6.1. The minimum requirement of aggregate attendance during a semester for appearing at the end-semester examination shall be 75%. Condonation of shortage of attendance to a maximum of 15 days in a semester subject to a maximum of two times during the whole period of the programme may be granted by the University.
- 6.2. If a student represents his/her institution, University, State or Nation in Sports, NCC, or Cultural or any other officially sponsored activities such as college union/ university union etc., he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum 15 days in a Semester based on the specific recommendations of the Head of the Department or teacher concerned.
- 6.3. Those who could not register for the examination of a particular semester due to shortage of attendance may repeat the semester along with junior batches, without considering sanctioned strength, subject to the existing University Rules and Clause 7.2.
- 6.4. A Regular student who has undergone a programme of study under earlier regulation/ Scheme and could not complete the Programme due to shortage of attendance may repeat the semester along with the regular batch subject to the condition that he has to undergo all the examinations of the previous semesters as per the MAC-PG-CSS2020 regulations and conditions specified in 6.3.
- 6.5. A student who had sufficient attendance and could not register for fourth semester examination can appear for the end semester examination in the subsequent years with the attendance and progress report from the principal.

## **7. REGISTRATION/ DURATION**

- 7.1 A student shall be permitted to register for the programme at the time of admission.
- 7.2 A student who registered for the Programme shall complete the Programme within a period of four years from the date of commencement of the programme.

- 7.3 Students are eligible to pursue studies for additional post graduate degree. They shall be eligible for award of degree only after successful completion of two years (four semesters of study) of college going.

## **8. ADMISSION**

- 8.1 The admission to all PG programmes shall be done through the Centralised Allotment Process of Mar Athanasius College (Autonomous), Kothamangalam(MAC-PG CAP) as per the rules and regulations prescribed by the affiliating university and the Government of Kerala from time to time.
- 8.2 The eligibility criteria for admission shall be as announced by the Parent University from time to time.

## **9. ADMISSION REQUIREMENTS**

- 9.1 Candidates for admission to the first semester of the PG programme through CSS shall be required to have passed an appropriate Degree Examination of Mahatma Gandhi University as specified or any other examination of any recognized University or authority accepted by the Academic council of Mahatma Gandhi University as eligible thereto.
- 9.2 Students admitted under this programme are governed by the Regulations in force.

## **10. PROMOTION:**

- 10.1 A student who registers for the end semester examination shall be promoted to the next semester
- 10.2 A student having 75% attendance and who fails to register for examination of a particular semester will be allowed to register notionally and is promoted to the next semester, provided application for notional registration shall be submitted within 15 days from the commencement of the next semester.
- 10.3 The medium of Instruction shall be English except programmes under faculty of Language and Literature.

## **11. EXAMINATIONS**

- 11.1 **End-Semester Examinations:** The examinations shall be at the end of each Semester of three hour duration for each centralised and practical course.

11.2 Practical examinations shall be conducted at the end of each semester or at the end of even semesters as prescribed in the syllabus of the particular programme. The number of examiners for the practical examinations shall be prescribed by the Board of Studies of the programmes.

11.3 A question paper may contain short answer type/annotation, shortessay type questions/problems and long essay type questions. Different types of questions shall have differentweightage.

## 12. EVALUATION AND GRADING

12.1 **Evaluation:** The evaluation scheme for each course shall contain two parts; (a) End Semester Evaluation(ESE) (External Evaluation) and (b) Continuous Evaluation(CE)(Internal Evaluation). 25% weightage shall be given to internal evaluation and the remaining 75% to external evaluation and the ratio and weightage between internal and external is 1:3. Both End Semester Evaluation(ESE) and Continuous Evaluation(CE) shall be carried out using direct grading system.

12.2 **Direct Grading:** The direct grading for CE (Internal) and ESE(External Evaluation) shall be based on 6 letter grades (A+, A, B, C, D and E) with numerical values of 5, 4, 3, 2, 1 and 0 respectively.

12.3 **Grade Point Average (GPA):**Internal and External components are separately graded and the combined grade point with weightage 1 for internal and 3 for external shall be applied to calculate the Grade Point Average (GPA) of each course. Letter grade shall be assigned to each course based on the categorization provided in 12.16.

12.4 **Internal evaluation:** The internal evaluation shall be based on predetermined transparent system periodic written tests, assignments, seminars, lab skills, records, viva-voce etc.

12.5 Components of internal (CE) and External Evaluation (ESE): Grades shall be given to the evaluation of theory / practical / project / comprehensive viva-voce and all internal evaluations are based on the Direct Grading System.

Proper guidelines shall be prepared by the BOS for evaluating the assignment, seminar, practical, project and comprehensive viva-voce within the framework of the regulation.

12.6 There shall be no separate minimum grade point for internal evaluation.

12.7 **The model of the components and its weightages for Continuous Evaluation (CE) and End Semester Evaluation (ESE) are shown in below:**

**a) For Theory (CE) (Internal)**

	<b>Components</b>	<b>Weightage</b>
i.	Assignment	1
ii.	Seminar	2
iii.	Best Two Test papers	2(1 each)
	<b>Total</b>	<b>5</b>

(Average grade of the best two papers can be considered. For test paper all the Questions shall be set in such a way that the answers can be awarded A+, A, B, C, D, E grades)

**b) For Theory (ESE) (External)**

Evaluation is based on the pattern of Question specified in **12.15.5**

**c) For Practical(CE) (Internal)**

<b>Components</b>	<b>Weightage</b>
Written / Lab Test	2
Lab Involvement and Record	1
Viva	2
<b>Total</b>	<b>5</b>

(The components and weightage of the practical(Internal) can be modified by the concerned BOS without changing the total weightage 5)

**d) For Practical(ESE) (External)**

<b>Components</b>	<b>Weightage</b>
Written / Lab Test	7
Lab Involvement and Record	3
Viva	5
<b>Total</b>	<b>15</b>

(The components and weightage of the practical (External) can be modified by the concerned BOS without changing the total weightage 15)

**e) For Project(CE) (Internal)**

<b>Components</b>	<b>Weightage</b>
Relevance of the topic and analysis	2
Project content and presentation	2
Project viva	1
<b>Total</b>	<b>5</b>

**(The components and the weightage of the components of the Project (Internal) can be modified by the concerned BOS without changing the total weightage 5)**

**f) For Project(ESE) (External)**

<b>Components</b>	<b>Weightage</b>
Relevance of the topic and analysis	3
Project content and presentation	7
Project viva	5
<b>Total</b>	<b>15</b>

**(The components and the weightage of the components of the Project (External) can be modified by the concerned BOS without changing the total weightage 15)**

**g) Comprehensive viva-voce (CE) (Internal)**

<b>Components</b>	<b>Weightage</b>
Comprehensive viva-voce(all courses from first semester to fourth semester)	5
<b>Total</b>	<b>5</b>

**(Weightage of the components of the Comprehensive viva-voce(Internal) shall not be modified.)**

**h)Comprehensive viva-voce (ESE) (External)**

Components	Weightage
Comprehensive viva-voce(all courses from first semester to fourth semester)	15
<b>Total</b>	<b>15</b>

**Weightage of the components of the Comprehensive viva-voce(External) shall not be modified.)**

- 12.8 **All grade point averages shall be rounded to two digits.**
- 12.9 To ensure transparency of the evaluation process, the internal assessment grade awarded to the students in each course in a semester shall be published on the notice board at least one week before the commencement of external examination.
- 12.10 **There shall not be any chance for improvement for Internal Grade.**
- 12.11 The course teacher and the faculty advisor shall maintain the academic record of each student registered for the course and a copy should be kept in the college for verification for at least two years after the student completes the programme.
- 12.12 **External Evaluation.** The external examination in theory courses is to be conducted by the College at the end of the semester. The answers may be written in English or Malayalam except those for the Faculty of Languages. The evaluation of the answer scripts shall be done by examiners based on a well-defined scheme of valuation. The external evaluation shall be done immediately after the examination.
- 12.13 Photocopies of the answer scripts of the external examination shall be made available to the students on request as per the rules prevailing in the University.
- 12.14 The question paper should be strictly on the basis of model question paper set and directions prescribed by the BOS.
- 12.15 **Pattern of Questions**
- 12.15.1 Questions shall be set to assess knowledge acquired, standard, and application of knowledge, application of knowledge in new**



**situations, critical evaluation of knowledge and the ability to synthesize knowledge. Due weightage shall be given to each module based on content/teaching hours allotted to each module.**

- 12.15.2** The question setter shall ensure that questions covering all skills are set.
- 12.15.3** A question paper shall be a judicious mix of short answer type, short essay type /problem solving type and long essay type questions.
- 12.15.4** The question shall be prepared in such a way that the answers can be awarded A+, A, B, C, D, E grades.
- 12.15.5** Weight: Different types of questions shall be given different weights to quantify their range as follows:

Sl.No.	Type of Questions	Weight	Number of questions to be answered
1	Short Answer type questions	1	8 out of 10
2	Short essay / problem solving type questions	2	6 out of 8
3	Long Essay Type questions	5	2 out of 4

**12.16 Pattern of question for practical.** The pattern of questions for external evaluation of practical shall be prescribed by the Board of Studies.

**12.17 DirectGradingSystem**

Direct Grading System based on a 6- point scale is used to evaluate the Internal and External examinations taken by the students for various courses of study.

Grade	Grade point(G)	Grade Range
A+	5	4.50 to 5.00
A	4	4.00 to 4.49
B	3	3.00 to 3.99
C	2	2.00 to 2.99
D	1	0.01 to 1.99
E	0	0.00

### 12.18 Performance Grading

Students are graded based on their performance (GPA/SGPA/CGPA) at the examination on a 7-point scale as detailed below.

Range	Grade	Indicator
4.50 to 5.00	A+	Outstanding
4.00 to 4.49	A	Excellent
3.50 to 3.99	B+	Very good
3.00 to 3.49	B	Good(Average)
2.50 to 2.99	C+	Fair
2.00 to 2.49	C	Marginal
up to 1.99	D	Deficient(Fail)

12.19 **No separate minimum is required for Internal Evaluation for a pass, but a minimum grade is required for a pass in an External Evaluation.**

**However, a minimum C grade is required for pass in a Course**

12.20 A student who fails to secure a minimum grade for a pass in a course will be permitted to write the examination along with the next batch.

12.21 **Improvement of Course-** The candidate who wish to improve the grade/grade point of the external examination of the of a course/ courses he/ she has passed can do the same by appearing in the external examination of the semester concerned along with the immediate junior batch. This facility is restricted to first and second semester of the programme.

12.22 **One Time Betterment Programme-** A candidate will be permitted to improve the **CGPA** of the programme within a continuous period of four semesters immediately following the completion of the programme allowing only once for a particular semester. The **CGPA** for the betterment appearance will be computed based on the **SGPA** secured in the original or betterment appearance of each semester whichever is higher.

If a candidate opts for the betterment of **CGPA** of a programme, he/she has to appear for the external examination of the entire semester(s) excluding practical /project/comprehensive viva-voce. One time betterment programme is restricted to students who have passed in all courses of the programme at the regular (First appearance)

### 12.23 Semester Grade Point Average(SGPA) and Cumulative Grade Point

**Average (CGPA) Calculations.** The SGPA is the ratio of sum of the credit point of all courses taken by a student in a semester to the total credit for that semester. After the successful completion of a semester, Semester Grade Point Average(SGPA) of a student in that semester is calculated using the formula given below.

$$\text{Semester Grade Point Average -SGPA } (S_j) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

(SGPA= Total credit Points awarded in a semester / Total credits of the semester)

Where 'S<sub>j</sub>' is the j<sup>th</sup> semester, 'G<sub>i</sub>' is the grade point scored by the student in the i<sup>th</sup> course 'C<sub>i</sub>' is the credit of the i<sup>th</sup> course.

12.24 **Cumulative Grade Point Average (CGPA)** of a programme is calculated using the formula:-

$$\text{Cumulative Grade Point Average (CGPA)} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

(CGPA= Total credit Points awarded in all semester / Total credits of the programme)

Where 'C<sub>i</sub>' is the credit for the i<sup>th</sup> semester, 'S<sub>i</sub>' is the SGPA for the i<sup>th</sup> semester. The **SGPA** and **CGPA** shall be rounded off to 2 decimal points.

For the successful completion of semester, a student shall pass all courses and score a minimum **SGPA** of 2.0. However a student is permitted to move to the next semester irrespective of her/his **SGPA**

## 13. GRADE CARD

13.1 The Institution under its seal shall issue to the students, a consolidated grade card on completion of the programme, which shall contain the following information:

- a) Name of the University.
- b) Name of college
- c) Title of the PG Programme.
- d) Name of Semesters
- e) Name and Register Number of students

- f) Code, Title, Credits and Max GPA (Internal, External & Total) of each course (theory & practical), project, viva etc in each semester.
- g) Internal, external and Total grade, Grade Point (G), Letter grade and Credit point (P) in each course opted in the semester.
- h) The total credits and total credit points in each semester.
- i) Semester Grade Point Average (SGPA) and corresponding Grade in each semester
- j) Cumulative Grade Point Average (CGPA), Grade for the entire programme.
- k) Separate Grade card will be issued.
- l) Details of description of evaluation process- Grade and Grade Point as well as indicators, calculation methodology of SGPA and CGPA as well as conversion scale shall be shown on the reverse side of the grade card.

**14. AWARD OF DEGREE** - The successful completion of all the courses with 'C' grade within the stipulated period shall be the minimum requirement for the award of the degree.

**15. MONITORING COMMITTEE**

There shall be a Monitoring Committee constituted by the Principal to monitor the internal evaluations conducted.

**16. RANK CERTIFICATE**

Rank certificate shall be issued to candidates who secure positions 1<sup>st</sup> and 2<sup>nd</sup>. Candidates shall be ranked in the order of merit based on the CGPA secured by them. Grace grade points awarded to the students shall not be counted for fixing the rank. Rank certificate shall be signed by the Principal and the Controller of Examinations.

**17. GRIEVANCE REDRESSAL COMMITTEE**

17.1 Department level: The College shall form a Grievance Redressal Committee in each Department comprising of the course teacher and one senior teacher as members and the Head of the Department as Chairperson. The Committee shall address all grievances relating to the internal assessment grades of the students.

17.2. College level: There shall be a college level Grievance Redressal Committee comprising of faculty advisor, college co-ordinator, one senior teacher and one staff council member and the Principal as Chairperson.

**18. FACTORY VISIT / FIELD WORK/VISIT TO A REPUTED RESEARCH INSTITUTE/ STUDENT INTERACTION WITH RENOWNED ACADEMICIANS** may be conducted for all Programmes before the commencement of Semester III.

**19.** Each student may undertake **INTERNSHIP/ON THE JOB TRAINING** for a period of not less than 15 days. The time, duration and structure of internship/on the job training can be modified by the concerned Board of Studies.

**20. TRANSITORY PROVISION**

Notwithstanding anything contained in these regulations, the Principal shall, for a period of three year from the date of coming into force of these regulations, have the power to provide by order that these regulations shall be applied to any programme with such modifications as may be necessary.

**21. REPEAL**

The Regulations now in force in so far as they are applicable to programmes offered by the college and to the extent they are inconsistent with these regulations are hereby repealed. In the case of any inconsistency between the existing regulations and these regulations relating to the Credit Semester System in their application to any course offered in a College, the latter shall prevail.

**22. Credits allotted for Programmes and Courses**

22.1 Total credit for each programme shall be **80**.

22.2 Semester-wise total credit can vary from 16 to 25

22.3 The minimum credit of a course is 2 and maximum credit is 5

**23. Common Course:** If a course is included as a common course in more than one programme, its credit shall be same for all programmes.

24. **Course Codes:** The course codes assigned for all courses (Core Courses, Elective Courses, Common Courses etc.) shall be unique.
25. **Models of distribution of courses, course codes, type of the course, credits, teaching hours for a programme are given in the following tables**

Example: **Programmes with practical -Total Credits 80-** Scheme of the syllabus

Semester	Course-Code	Course Name	Type of the Course	Teaching Hours Per Week	Credit	Total Credits
I	Course.code1	Name1	core	4	4	19
	Course.code2	Name2	core	4	4	
	Course.code3	Name3	core	4	4	
	Course.code4	Name4	core	3	3	
	Practical Course.code5	Name5	core	10	4	
II	Course.code6	Name6	core	4	4	20
	Course.code7	Name7	core	4	4	
	Course.code8	Name8	core	4	4	
	Course.code9	Name9	core	3	4	
	Practical-Course.code10	Name10	core	10	4	
III	Course.code11	Name11	core	4	4	20
	Course.code12	Name12	core	4	4	
	Course.code13	Name13	core	4	4	
	Course.code14	Name14	core	3	4	
	Practical Course.code15	Name15	core	10	4	
IV	Course.code16	Name16	Elective	5	3	21
	Course.code17	Name17	Elective	5	3	
	Course.code18	Name18	Elective	5	3	
	Practical-Course.code19	Name19	core	10	5	
	Project-Course.code20	Name20	core		5	
	Comprehensive viva- voce Course.code 21	Name 21	core		2	
	<b>Total</b>					<b>80</b>

Example: **Programmes without practical -Total Credits 80-** Scheme of the syllabus

Semester	Course-Code	Course Name	Type of the Course	Teaching Hours per week	Credit	Total Credits
I	Course.code1	Name 1	core	5	4	20
	Course.code2	Name 2	core	5	4	
	Course.code3	Name 3	core	5	4	
	Course.code4	Name 4	core	5	4	
	Course.code5	Name 5	core	5	4	
II	Course.code6	Name 6	core	5	4	20
	Course.code7	Name 7	core	5	4	
	Course.code8	Name 8	core	5	4	
	Course.code9	Name 9	core	5	4	
	Course.code10	Name 10	core	5	4	
III	Course.code11	Name 11	core	5	4	20
	Course.code12	Name 12	core	5	4	
	Course.code13	Name 13	core	5	4	
	Course.code14	Name 14	core	5	4	
	Course.code15	Name 15	core	5	4	
IV	Course.code16	Name 16	Elective	5	3	20
	Course.code17	Name 17	Elective	5	3	
	Course.code18	Name18	Elective	5	3	
	Course.code19	Name19	core	5	4	
	Project-Course.code20	Name20	core	5	5	
	Comprehensive viva-voce Course.code21	Name 21	core		2	
	<b>Total</b>					<b>80</b>

**Appendix**

**1. Evaluation first stage – Both internal and external to be done by the teacher)**

Grade	Grade Points	Range
A+	5	4.50 to 5.00
A	4	4.00 to 4.49
B	3	3.00 to 3.99
C	2	2.00 to 2.99
D	1	0.01 to 1.99
E	0	0.00

**The final Grade range for courses, SGPA and CGPA**

Range	Grade	Indicator
4.50 to 5.00	A+	Outstanding
4.00 to 4.49	A	Excellent
3.50 to 3.99	B+	Very good
3.00 to 3.49	B	Good
2.50 to 2.99	C+	Fair
2.00 to 2.49	C	Marginal
Upto1.99	D	Deficient(Fail)

**Theory-External-ESE**

Maximum weight for external evaluation is 30. Therefore Maximum Weighted Grade Point (WGP) is 150

Type of Question	Qn. No.'s	Grade Awarded	Grade Point	Weights	Weighted Grade Point
Short Answer	1	A+	5	1	5
	2	-	-	-	-
	3	A	4	1	4
	4	C	2	1	2
	5	A	4	1	4
	6	A	4	1	4
	7	B	3	1	3



	8	A	4	1	4
	9	B	3	1	3
	10	-	-	-	
Short Essay	11	B	3	2	6
	12	A+	5	2	10
	13	A	4	2	8
	14	A+	5	2	10
	15	-	-	-	-
	16	-	-	-	-
	17	A	4	2	8
	18	B	3	2	6
Long Essay	19	A+	5	5	25
	20	-	-	-	-
	21	-	-	-	-
	22	B	3	5	15
			<b>TOTAL</b>	<b>30</b>	<b>117</b>
<b>Calculation :</b>					
<b>Overall Grade of the theory paper = Sum of Weighted Grade Points /Total Weight = 117/30 = 3.90 = Grade B</b>					

### Theory-Internal-CE

Maximum weight for internal evaluation is 5. Therefore Maximum Weighted Grade Point (WGP) is 25.

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP=W *GP	Overall Grade of the Course
Assignment	1	A	4	4	<b>WGP/Total Weight= 24/5 =4.8</b>
Seminar	2	A+	5	10	
Test Paper 1	1	A+	5	5	
Test Paper 2	1	A+	5	5	
<b>Total</b>	<b>5</b>			<b>24</b>	<b>A+</b>

### Practical-External-ESE

Maximum weight for external evaluation is 15. Therefore Maximum Weighted Grade Point (WGP) is 75

Components	Weight(W)	Grade Awarded	Grade Point(GP)	WGP=W*GP	Overall Grade of the Course
Written/Lab Test	7	A	4	28	<b>WGP/Total Weight= 58 / 15 = 3.86</b>
Lab involvement & record	3	A+	5	15	
Viva	5	B	3	15	
<b>Total</b>	<b>15</b>			<b>58</b>	

**Practical-Internal-CE**

**Maximum weight for internal evaluation is 5. Therefore Maximum Weighted Grade Point (WGP) is 25**

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP=W *GP	Overall Grade of the Course
Written/ Lab Test	2	A	4	8	WGP/Total Weight=17/5 =3.40
Lab involvement & record	1	A+	5	5	
Viva	2	C	2	4	
<b>Total</b>	<b>5</b>			<b>17</b>	<b>B</b>

**Project-External-ESE**

**Maximum weight for external evaluation is 15. Therefore Maximum Weighted Grade Point (WGP) is 75**

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP= W*GP	Overall Grade of the Course
Relevance of the topic & Analysis	3	C	2	6	WGP/Total Weight = 56/15= 3.73
Project Content &Presentation	7	B	5	35	
Project Viva- Voce	5	B	3	15	
<b>Total</b>	<b>15</b>			<b>56</b>	<b>B</b>

**Project -Internal-CE**

**Maximum weight for internal evaluation is 5. Therefore Maximum Weighted Grade Point (WGP) is 25**

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP=W *GP	Overall Grade of the Course
Relevance of the topic & Analysis	2	B	3	6	WGP/Total Weight= 21/5 = 4.2
Project Content & Presentation	2	A+	5	10	
Project Viva-Voce	1	A+	5	5	
<b>Total</b>	<b>5</b>			<b>21</b>	<b>A</b>

**Comprehensive viva-voce-External-ESE**

Maximum weight for external evaluation is 15. Therefore Maximum Weighted Grade Point (WGP) is 75

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP=W*GP	Overall Grade of the Course
Comprehensive viva-voce	15	A	4	60	WGP/Total Weight = 60 / 15 = 4
Total	15			60	A

**Comprehensive viva-voce-Internal-CE**

Maximum weight for internal evaluation is 5. Therefore Maximum Weighted Grade Point (WGP) is 25

Components	Weight (W)	Grade Awarded	Grade Point(GP)	WGP=W *GP	Overall Grade of the Course
Comprehensive viva-voce	5	A+	5	25	WGP/Total Weight = 25/ 5 = 5
Total	5			25	A+

**2. Evaluation Second stage-(to be done by the College)**

**Consolidation of the Grade(GPA) of a Course PC-1**

The End Semester Evaluation (ESE) (External evaluation) grade awarded for the course PC-1 is A and its Continuous Evaluation (CE) (Internal Evaluation) grade is A. The consolidated grade for the course PC-1 is as follows

Evaluation	Weight	Grade awarded	Grade Points awarded	Weighted Grade Point
External	3	A	4.20	12.6
Internal	1	A	4.40	4.40
Total	4			17
Grade of a course.	GPA of the course =Total weighted Grade Points/Total weight= 17/4 =4.25 = Grade A			

**3. Evaluation Third stage-(to be done by the College)**

**Semester Grade Point Average (SGPA)**

Course code	Title of the course	Credits (C)	Grade Awarded	Grade Points(G)	Credit Points (CP=C X G)
01	PC-1	5	A	4.25	21.25
02	-----	5	A	4.00	20.00
03	-----	5	B+	3.80	19.00
04	-----	2	A	4.40	8.80
05	-----	3	A	4.00	12.00
<b>TOTAL</b>		<b>20</b>			<b>81.05</b>
<b>SGPA</b>	<b>Total credit points / Total credits = 81.05/20 = 4.05=</b> <b>Grade- A</b>				

**4. Evaluation Third stage-(to be done by the College)**

**Cumulative Grade Point Average (CGPA)**

If a candidate is awarded three **A+** grades in semester 1(SGPA of semester 1), semester 2(SGPA of semester 2), semester 4(SGPA of semester 4) and **B** grades in semester 3(SGPA of semester 3). Then CGPA is calculated as follows:

Semester	Credit of the Semesters	Grade Awarded	Grade point (SGPA)	Credit points
I	20	A+	4.50	90
II	20	A+	4.60	92
III	20	B	3.00	60
IV	20	A+	4.50	90
<b>TOTAL</b>	<b>80</b>			<b>332</b>
<b>CGPA= Total credit points awarded / Total credit of all semesters = 332 / 80= 4.15</b> <b>( Which is in between 4.00 and 4.49 in 7-point scale)</b> <b>Therefore the overall Grade awarded in the programme is A</b>				

## **4 ELIGIBILITY FOR ADMISSION**

Academic eligibility should be satisfied as on the last date of submission of academic data. No candidate shall be admitted to the PG programme unless he/she possess the qualifications and minimum requirements thereof, as prescribed by Mahatma Gandhi University from time to time.

**If an applicant for admission is found to have indulged in ragging in the past or if it is noticed later that he/she had indulged in ragging, admissions shall be denied or he/she will be expelled from Mar Athanasius College (Autonomous), Kothamangalam.**

Candidates should have passed the corresponding Degree Examination under the 10 + 2 + 3 pattern with one core/main subject and two complementary/subsidiary subjects from any of the Universities in Kerala or of any other University recognized by Mahatma Gandhi University as equivalent thereto for admission, subject to the stipulation regarding marks.

OR

Candidates who have passed Degree examination with Double or Triple main subject and candidates who have passed the Degree Examination in Vocational or Specialized Programmes are also eligible for admission. However, they have to submit copy of the Equivalency/Eligibility Certificate from Mahatma Gandhi University, stating that, their Qualifying Examination is recognized for seeking admission to the relevant P.G. Degree Programme(s) as applicable, at the time of admission. This provision is not applicable in the case of those applicants who have passed their qualifying examination from MG University.

**The minimum requirements for admission to PG Degree Programmes are:**

### **FACULTY OF SOCIAL SCIENCES**

#### **M. A. Economics**

**75% of the total seats would be reserved for BA Economics (Model I/II) graduates.**

<b>Graduates who have passed qualifying examination in CBCS (2017)/CBCSS (2013) pattern</b>	<b>Graduates who have passed qualifying examination in CBCSS (2009) pattern</b>	<b>Graduates who have passed qualifying examination in other patterns</b>
Graduation in Economics /Mathematics/ Statistics with CGPA/CCPA of not less than 4.5 out of 10 in the core group (Core + Open + Complementary)	Graduation in Economics /Mathematics /Statistics with not less than CGPA of 1.8 out of 4 in the core group (Core + Open + Complementary)	Graduation in Economics /Mathematics/Statistics with not less than 45% marks in the Part III subjects (Main + subsidiaries) or B.Sc. Degree holders in Co-operation and Banking with not less than 45% marks from Kerala Agricultural University.
<b>Weightage of 10 marks shall be given to the candidates who have studied Economics as Core/Main.</b>		

The Open course under core group is taken only for reckoning the eligibility for applying for the PG programmes concerned. But a candidate cannot apply for the respective PG programmes solely on the basis of the open course selected under core group.

**Relaxation in Marks in the qualifying examination:**

- (i) Kerala Scheduled Caste/Scheduled Tribe Category:** The minimum grade in the qualifying examination for admission to the PG Degree programmes is 'C' in the seven point scale for CBCSS and a pass for pre CBCSS applicants.
- (ii) SEBC Category:** A relaxation of 3% marks in the qualifying examination from the prescribed minimum is allowed i.e. CGPA of 4.2 for CBCS (2017), CCPA of 4.2 for CBCSS (2013), CGPA of 1.68 for CBCSS (2009) applicants and 42% marks for pre-CBCSS applicants for admission to M.A/M.Com programmes
- (iii) OEC Category:** A relaxation of 5% marks in the qualifying examination from the prescribed minimum is allowed i.e. CGPA of 4.0 for CBCS (2017), CCPA of 4.0 CBCSS (2013), CGPA of 1.60 for CBCSS (2009) applicants and 40% marks for pre CBCSS applicants for admission to MA/M Com programmes.
- (iv) Persons with Disability category:** A relaxation of 5% marks in the qualifying examination from the prescribed minimum is allowed i.e. CGPA of 4.0 for CBCS (2017), CCPA of 4.0 for CBCSS (2013), CGPA of 1.60 for CBCSS (2009) applicants and 40% marks for pre CBCSS applicants for admission to for admission to MA/M Com programme.

## **Scheme and Structure of M.A. Economics Programme**

(Under Mahatma Gandhi University Regulations PGCSS2019 from 2020 Academic year onwards)

**5**

### **AIM OF THE PROGRAM M.A. ECONOMICS**

The broad objective of M.A. Economics program is to provide students with a full understanding of economic theory and with a firm grounding in the analytic methods of economic theory used by economists working in research, government, and business. It also aims at equipping the students with the analytical tools of economics to have a holistic understanding of the economy in particular and the society in general. It prepares them for challenging careers open to economists. The objective of economics instruction is to offer an opportunity for students to be exposed to different facets of the discipline and to learn how economists go about their work. The specific objectives of the M.A. Economics Program are as given below:

- i. To give students knowledge in the various fields of Economics and an in-depth understanding of the theoretical and empirical constructs in the field of Economics.
- ii. To disseminate awareness and appreciation of the complexity of socio-economic interdependence and change.
- iii. Application of economic theories and dilating problem-solving acumen. To teach applications of theories in analysing current economic problems.
- iv. To prepare the students for advanced studies leading to M. Phil. and PhD.
- v. To equip students with a set of tools of econometrics, this would help them to solve real-world problems.
- vi. Develop the powers of inquiry, critical analysis, logical thinking, and your ability to apply theoretical knowledge to current issues of policy and practice in economics.
- vii. Encourage initiative, independent learning, awareness of analytical and theoretical approaches in the field of economics, exposure to recent research and state-of-the-art tools in applied for work in economics;
- viii. To train students for model building, test economic models using advanced methods and sophisticated economic tools, analysis interpretation and formulation of development policies.
- ix. To stimulate analytical and critical thinking on the different economic issues.
- x. To develop the capabilities of original and independent work, promoting excellence in thought and in action.
- xi. To give the students a level of knowledge in economics to equip them to get employment in professional occupations or in other Research focused roles.

## **6 PROGRAM LEARNING OUTCOMES**

Specifically, upon successful completion of the program students will be able:

1. **Gaining Access to Existing Knowledge:** Students are able to create a continuous learning environment for engaging themselves to update with new knowledge in Economics. Locate published research in economics and related fields; locate information on particular topics and issues in economics; search out economic data as well as information about the meaning of the data and how they are derived.
2. **Displaying Command of Existing Knowledge:** Students are able to demonstrate knowledge of theoretical and empirical bases underpinning the construction, implementation and interpretation of Economic theories and assessment techniques, and be able to assess the Economic and social consequences regarding the same. Summarize (in a 2-minute monologue or a 300-word written statement) what is known about the current condition of the economy; summarize the principal ideas of an eminent living economist; summarize a current controversy in the economics literature; state succinctly the dimensions of a current economic policy issue; explain key economic concepts and describe how they can be used.
3. **Displaying Ability to Draw Out Existing Knowledge:** Write a precis of a published journal article; read and interpret a theoretical analysis, including simple mathematical derivations, reported in an economics journal article; read and interpret a quantitative analysis, including regression results, reported in an economics journal article; show what economic concepts and principles are used in economic analyses published in articles from newspapers and newsmagazines.
4. **Utilizing Existing Knowledge to Explore Issues:** To take a rigorous, quantitative approach to solve economic problems and to build and test economic models, using sophisticated economics tools. Prepare a written analysis (of say, 5 pages) of a current economic problem; prepare a decision memorandum (of say, 2 pages) for a superior that recommends some action on an economic decision faced by the organization.
5. **Creating New Knowledge:** Think critically, independently and creatively to synthesize concepts to formulate cases, issues, identify and formulate a question or series of questions about some economic issues that will facilitate investigation of the issue; prepare a 5-page proposal for a research project; complete a research study whose results are contained in a published paper.



**6.1 POSTGRADUATE PROGRAM OUTCOMES (PO)**

PO No.	Upon completion of postgraduate program, the students will be able to:
PO-1	Create, apply and disseminate knowledge leading to innovation
PO-2	Think critically, explore possibilities and exploit opportunities positively
PO-3	Work in teams, facilitating effective interaction in work places.
PO-4	Lead a sustainable life
PO-5	Embrace lifelong learning

**6.2 M.A. ECONOMICS PROGRAM**

## PROGRAM SPECIFIC OUTCOMES (PSO)

PSO No.	Upon completion of MA Economics program, the students will be able to:	PO No.
PSO-1	Recognize and describe the basic principles that lie behind the contemporary economic issues.	1 & 2
PSO-2	Critically think about the knowledge gained that may kindle a spirit of lifelong learning.	2 & 5
PSO-3	Develop writing and analytical skills to prepare articles, reports and documents in the field of their interest.	1 & 2
PSO-4	Get engaged in team work to undertake collaborative assignments in problem solving situations of socio economic importance.	2,3 & 4
PSO-5	Access information worldwide and logically incorporate them to substantiate their analysis.	1,2 & 3
PSO-6	Analyse basic statistical data, make inferences and report.	1 & 2
PSO-7	Improve communication skills to make presentations and to participate in deliberations individually or as a group in policy debates.	3
PSO-8	Develop skills for original research that contribute to framing of economic policies.	1, 2 & 5

## 7 THE PROGRAM STRUCTURE OF M. A. ECONOMICS

- i. Students shall be admitted into the four-semester postgraduate program in Economics.
- ii. The program shall include two types of courses; Core courses and Elective Courses.
- iii. There are 17 core courses and 3 groups-wise electives with three courses. The core courses are designed to provide students with rigorous academic training, as well as with tools that can be used in policy analysis.
- iv. The elective courses shall be in the fourth semester. All the elective courses shall hold same credit for a program.
- v. The elective courses mainly aim to provide specialization in various economics courses such as applied, mathematical stream and advanced microeconomics. The department will offer any one group in the fourth semester.
- vi. The selection of courses from different groups are not permissible.
- vii. There shall be three groups of three Elective courses for the program such as Group A, Group B and Group C. *The Board of Studies of M.A. Economics held on 17<sup>th</sup> June 2020 decided that for the academic year 2020-21 the students will be offered electives from Group A and in future if there is a demand from students for electives from other groups, the board of studies may consider the same.*
- viii. Course evaluation would consist of seminar presentations, assignments, written examinations, Project and viva-voce.
- ix. There shall be a Project with a dissertation to be undertaken by all students.
- x. The student shall submit one assignment as an internal component for every course.
- xi. The PG student may deliver one seminar lecture as an internal component for every course.
- xii. Every student shall undergo two class tests as an internal component for every course.
- xiii. Total credits for the program are eighty (80). No course shall have more than four (4) credits.
- xiv. Project shall be completed by working outside the regular teaching hours. Project shall be carried out under the supervision of a teacher in the department concerned. A candidate may, however, in certain cases be permitted to work on the project in an industrial / research organization on the recommendation of the Supervisor. There shall be an internal assessment and external assessment for the project.

- xv. The external evaluation of the dissertation work is followed by the presentation of work including dissertation and viva-voce.
- xvi. Comprehensive viva voce shall be conducted at the end of the program. This shall cover questions from all courses in the program.
- xvii. The weight for the Internal Evaluation of Theory Project/Comprehensive viva-voce is 5 and the External evaluation of Project /Comprehensive viva-voce is 15 and its maximum Weighted Grade Point (WGP) is 25 and 75 respectively. The Internal External ratio is 1:3.
- xviii. There shall be no separate minimum grade point for internal evaluation.
- xix. The minimum requirement of aggregate attendance during a semester for appearing the end semester examination shall be 75%.
- xx. The program shall include a study tour for students, which can be done during any semester. The tour shall be to research institutions/ industrial sites, extending for a maximum of five working days, excluding journey time.

**8. SEMESTER-WISE COURSE DETAILS OF M.A. ECONOMICS (2020-2021)**

SEMESTER	COURSE CODE	Title of the Course	Type of the Course	Hours/Week	Credits
I	PG20EC101	Microeconomics-I	Core	05	04
	PG20EC102	Macroeconomics-I	Core	05	04
	PG20EC103	Indian Economy-I	Core	05	04
	PG20EC104	Development Economics	Core	05	04
	PG20EC105	Mathematics for Economics	Core	05	04
II	PG20EC206	Microeconomics-II	Core	05	04
	PG20EC207	Macroeconomics-II	Core	05	04
	PG20EC208	Indian Economy-II	Core	05	04
	PG20EC209	Kerala Economy	Core	05	03
	PG20EC210	Statistics for Economics	Core	05	04
III	PG20EC311	International Trade	Core	05	04
	PG20EC312	Econometrics-I	Core	05	04
	PG20EC313	Public Economics	Core	05	04
	PG20EC314	Heterodox Economics	Core	05	04
	PG20EC315	Environmental Economics	Core	05	04
IV	PG20EC416	International Finance	Core	05	04
	PG20EC417	Econometrics-II	Core	05	04
	PG20EC418	Agricultural Economics	Elective from group A	05	03
	PG20EC419	Industrial Economics	Elective from group A	05	03
	PG20EC420	Labour Economics	Elective from group A	05	03
	PG20EC4P	Project / Dissertation	Core	Credit	02
	PG20EC4V	Comprehensive Viva - Voce	Core	Credit	02
<b>Total weight of the course</b>					<b>80</b>

## 9. Dissertation Format

The dissertation shall be prepared in the following format.

### Dissertation: Master of Arts (M.A.) in Economics

#### General Guidelines

1	General Introduction to the Study
2	Review of Literature
3	Research Gap
4	Statement of the problem
5	Significance of the Study
6	Formulation of Research Questions /Issues
7	Research objectives
8	Hypotheses
9	Conceptual Framework – Conceptualization & Operationalization (precise and specific meaning of the terms and concepts)
10	Theoretical framework
11	Analytical Framework
12	Data source (Primary/Secondary)
13	Sampling framework
14	Pilot Survey, if needed
15	Tools of analysis (Analytical Framework)
16	Limitations of the study
17	Chapter outlines
18	Chapters
19	Situating the Study
20	Discussion of the Results
21	Major findings, Summary, Recommendations (if any) and Conclusion
22	Bibliography /References &Webliography
23	Appendices

<b>1.1. Title page</b>		<b>1.2 Preface</b>	
a	Title of the project	<b>1.3 Table of contents</b>	
b	Name of the candidate	a	List of Tables
c	Name and designation of the supervisor	b	List of Figures
d	Degree for which project is submitted	c	Glossary.
e	Name of the College	d	List of abbreviations
f	Month and year the project is presented	e	Acknowledgment
g	Declaration of the student & supervisor	<b>1.4 Abstract/ Executive Summary (One page)</b>	
<b>1.5 The Main Text</b>			
a. Introductory Chapter: Items 3 to 16 mentioned above			
b. Other Chapters- Analysis, Results Interpretation			
c. Conclusion Chapter: Conclusions, Recommendations & Summary			
<b>1.6 End Notes (after each Chapter)</b>			
<b>1.7. Bibliography or References (at the end of the thesis)</b>			
<b>1.8 Appendices</b>			
a	Questionnaire	d	Coding Frame (optional)
b	Interview Schedule	e	Letters sent to sample members (optional)
c	Observation Schedule (optional)	f	Any Other
<b>Length of the Project</b>			
a. Report length 40 to 50 pages excluding Appendix and Certificates			
b. Alignment: Justify			
c. Font: Times New roman			
d. Font size: 12			
e. Line spacing: 1.5			
f. Double line Page Border			
* Style of The Report: • Chicago Manual of Style (CMS) or American Psychological Association Style (APA)			

**Departmental Requirement**

(To be kept at the Department by the Supervisor)

**Supervisor- Student Meeting Log**

Date/Time	Discussion Areas	Summary of Discussions	Signature of the Supervisor
	Topic selection		
	Clarify Objectives		
	Literature Review		
	Seminar 1		
	Research Design		
	Collect Data		
	Analyze Data		
	Write up		
	Supervisor's Comments		
	Final Draft -Seminar 2		

**Name of the Supervisor:**

**Name of the Student:**

Notes: The dissertation work may be started in the Third Semester itself for timely completion of the work at the end of the IV Semester.

**10. FIRST SEMESTER**

Course Code	Title of the Course	Type of the Course	Hours per week	Credits
PG20EC101	<b>Microeconomics-I</b>	Core	<b>05</b>	<b>04</b>
PG20EC102	<b>Macroeconomics-I</b>	Core	<b>05</b>	<b>04</b>
PG20EC103	<b>Indian Economy-I</b>	Core	<b>05</b>	<b>04</b>
PG20EC104	<b>Development Economics</b>	Core	<b>05</b>	<b>04</b>
PG20EC105	<b>Mathematics for Economics</b>	Core	<b>05</b>	<b>04</b>



Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>I</b>	PG20EC101	<b>Microeconomics –I</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- The purpose of this course is to provide students with a solid understanding of modern microeconomic theory. The course presents a rigorous treatment of the principles governing individual behaviour, market structure, and game theory.
- The course will equip the students in a comprehensive manner with the multiple facets of the modern Microeconomic theory and the applications of theories in analysing current economic problems and to develop the ability to synthesize knowledge.
- The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyses real-life situations.
- By the end of this course, the student is expected to be familiar with basic concepts of microeconomics and acquire analytical skills to analyses problems of economic policy.
- The students should be able to demonstrate a capacity to explain and evaluate critically theoretical arguments.
- The course is intended to provide a good understanding and base to the students in applying the concepts and methods of microeconomics in the practical field.

**Unit- 1 Theory of Consumer Behaviour**

**(25 Hours)**

1.1. Utility Function - Indirect Utility Function- Roy's Identity- Duality Theory

1.2. Developments in the theory of market demand: The Pragmatic Approach to Demand Theory — Constant Elasticity Demand Function - Dynamic Versions of Demand Function; Nerlove, Houthakker and Taylor-Linear expenditure system.

1.3. Consumer Choices Involving Risk and Uncertainty: Bernoulli Hypothesis, Neumann and Morgenstern Index, Friedman and Savage hypothesis, Markowitz hypothesis.

1.4. Inter-temporal Substitution effect- Choices Involving Time- Time Allocation model of Gary S Becker- Attributes model of Kevin Lancaster

1.5. Network Externalities — Bandwagon, Snob and Veblen Effects

**Unit- 2: Theory of Production and Cost (20 Hours)**

- 2.1. Homogenous and Non-Homogenous Production Functions –A brief account of Production function of a single product firm- Production function of a multi-product firm
- 2.2. Production Function and Technical progress: Labour deepening, Capital deepening and Neutral technical progress
- 2.3 Empirical production functions - Cobb-Douglas Production Function - Constant Elasticity Substitution(CES) Production Function—Variable Elasticity of Substitution (VES) Production Function-- Homothetic Production Function
- 2.4. Theory of Cost: Cost function – L shaped average cost curve - Engineering cost curves - Learning Curve - Returns to Scope

**Unit- 3: Oligopoly and Economic Behaviour of Firm (30 Hours)**

- 3.1 Non-collusive oligopoly models with Homogeneous Product: Cournot, Bertrand & Stackelberg Model
- 3.2. Non-collusive oligopoly models with Non-homogeneous Product: Chamberlin's model, Sweezy's Kinked Demand Curve and the Contestable Market Theory of Baumol
- 3.3. A brief account of collusive Oligopoly models: Cartels and Price Leadership

**Unit- 4 Theory of Games (15 Hours)**

- 4.1. Strategies - Zero-Sum Game & Non-Zero-Sum Game - Prisoner's Dilemma - Nash Equilibrium- Game Theory Applications - Important Issues in Game Theory - Cooperation, Competition.

**Reference:**

- A. Koutsoyiannis (1985): Modern Microeconomics, 2nd Ed, MacMillan Education (Reprint).  
Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green (2005): Microeconomic Theory, OUP.
- Austan Goolsbee, Steven Levitt and Chad Syverson (2013): Microeconomics, Worth Publishers
- B. Douglas Bernheim and Michael D. Whinston (2016): Microeconomics, McGraw-Hill.  
Christopher Snyder, Walter Nicholson and Robert Stewart (2015): Microeconomic

Theory: Basic Principles and Extensions, Cengage Learning.

David Besanko and Ronald R. Braeutigam (2014): Microeconomics, 4th Ed, John Wiley and Sons, Inc.

Genaro C. da Costa (2005): Value and Distribution in Neoclassical and Classical System, 2nd Ed, Himalaya Publishers, Mumbai.

Geoffrey A. Jehle and Philip J. Reny (2014): Advanced Microeconomic Theory 3rd Ed, Prentice Hall.

Gibbons, R. (1992): Game Theory for applied economists, Princeton University Press.

Hal R. Varian (2014): Intermediate Microeconomics with Calculus, 1st Ed, W. W. Norton & Company.

Henderson, M. and R.E. Quandt (1989): Microeconomic Theory: Mathematical Approach, 3rd Ed, McGraw Hill.

Jeffrey M. Perloff (2016): Microeconomics with Calculus, 3rd Ed, Pearson.

Judy A. Whitehead (2015): Microeconomic: A Global Text, Routledge.

Mike Rosser (2011): Microeconomics: The Firm and the Market Economy, MacMillan

Robert Awh (2001): Microeconomics, John Wiley.

Robin Bade and Michael Parkin (2017): Foundations of Microeconomics, 7th Ed, Pearson.

Saul Estrin, David Laidler and Michael Dietrich (2016): Microeconomics, 5th Ed, Prentice Hall

Snyder and Nicholson (2016): Microeconomic Theory: Basic Principles and Extensions, 11th Ed, Pearson.

Steven E. Landsburg (2017): Price Theory and Applications, 8th Ed. Cengage Learning.

Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1st Edition, South Western Cengage Learning.

William A. McEachern (2017): Principles of Microeconomics, 4th Ed, Cengage Learning.

Mas-Colell A, Whinston M and J. Green (2012): Microeconomic Theory, OUP

David M. Kreps, (1990) A Course in Microeconomic Theory, Princeton University Press.

Broadway, R. W and N. Bruce (1984), Welfare Economics, Basil Blackwell, Oxford

**Course Outcomes**

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Acquire the knowledge of consumer behaviour which enables the student in taking rational buying decisions and also help a firm to design suitable marketing strategies	K 1	1
2	Equip with the knowledge and skill in effective decision making under uncertain market situations, and also understands the importance of time allocation and household management	K 2	1
3	Understand the economies of scope and learning curves and help in analyzing the nature and functioning of modern multiproduct firms	K 3	2
4	Develops the skill in analyzing business phenomena in terms of transaction cost saving and develops the understanding of the economic level of information search possible under different situations and the concept of bounded rationality	K 4	6

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Applying; K 4-Analysing; K 5-Evaluating; K 6-Creating.

**LEARNING PEDAGOGY**

Class room lecture, seminar and group discussions, power point presentations, online classes, self-study and classes through social media

**ASSESSMENT TOOLS**

Both Formative and Summative Assessments; Evaluation and Examination methods which include Test Paper, Assignments, Debates, Quiz assignments, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>I</b>	<b>PG20EC102</b>	<b>Macroeconomics –I</b>	<b>Core</b>	<b>4</b>	<b>90</b>
<b>Course Objectives</b>					
<ul style="list-style-type: none"> <li>• This course provides a rigorous framework for understanding the aggregate economy in both the short run and the long run.</li> <li>• The objective of the course is to provide an overview of modern macroeconomics at the post-graduate level, to show how this body of theory can be adapted to the characteristics of developing economies.</li> <li>• Another objective of the course is to familiarize the students with the contribution of various schools of thought in macroeconomics. The first part of the course is intended to present a thorough understanding of three outstanding orthodoxies, viz, Classical, Keynesian, Modern Neo- classical synthesis, Neo Keynesianism and Monetarism. The course structure covers the major debates and controversies intends to provide a wider vision of the present discourses in macroeconomics.</li> <li>• The course will help to develop the aptitude to relate concepts with research and policy.</li> <li>• The course aims to introduce students to key concepts, methodologies, theories, and techniques in modern macroeconomic analysis. Particular emphasis is placed on the analysing techniques of some of the theoretical models used widely in the analysis of economic growth, consumption, and investment.</li> <li>• At the end of this course, students should be able to (i) know of the major issues as they arise in the field of macroeconomics, (ii) understand alternative approaches to analysing consumption, and investment, (iii) critically evaluate the usefulness of macroeconomic techniques.</li> </ul>					

**Unit- 1: Classical versus Keynesian Approach****(40 Hours)**

1.1. Classical: Labour Market-Employment and Output-Say's Law- Interest Rate-Quantity Theory of Money: Neutrality of Money and Classical Dichotomy. (Self-Study)

1.2. Keynesian Fixed Price Models: Keynesian Cross Model (Three Sector Model) and IS-LM Model: Liquidity Trap- Crowding Out Effect.

1.3.Keynesian Flexible Price Model: AD-AS Framework-Policy Implications-Multiplier: T and G-Multiplier, Balanced Budget Multiplier- Built-in-Stabilizers-Ricardian Equivalence.

1.4.Labour Market: Classical versus Keynes –Keynes Effect and Real Balance Effect 1.5. Inflation: Inflationary Gap-Demand-Pull and Cost-Push Inflation-Phillips Curve: Lipsey’s excess-demand model – The Samuelson-Solow modification of the Phillips curve- Tobin’s views on Phillips curve- Strategies to control inflation.

1.6.Neo-Keynesian Analysis (Disequilibrium Models): Walrasian Vs. Keynesian Models. Effective Demand and Notional Demand --Incompatibility of Walras LawandNeoclassical Synthesis of Keynes’s General Theory- Disequilibrium models of Robert Clower-Leijonhufvud’s, Barro-Grossman and Malinvaud.

## **Unit- 2: Monetarism**

**(10 Hours)**

2.1 Main Propositions of Monetarism—Friedman’s Re-statement of Quantity Theory of Money – Monetarist Inflation Theory –Adaptive Expectation Hypothesis

2.2 Monetarism and the Philips Curve: The Friedman-Phelps Expectations-Augmented Phillips Curve –Natural Rate of Unemployment Hypothesis-Accelerationist Hypothesis and NAIRU.

Policy Implications- Business Cycles and Monetary Policy: -Rule Versus Discretion-Cold Turkey versus Gradualism-Taylor rule-Inflation Targeting.

## **Unit- 3: Demand for Money and Supply of Money**

**(20 Hours)**

3.1. Theoretical Approaches to the Demand for Money: The Classics, Keynes, and Friedman.

3.2 Transactions Theories of Money Demand: The Baumol Model-The Shopping-Time Model –Cash-in-Advance Models.

3.3. Tobin’s Portfolio Theories of Money Demand- Buffer Stock Demand for Money: Akerlof and Milbourne (A-M) Model, Miller and Orr(M-O) Model.

3.4. Supply of Money: Financial Intermediation- Mechanistic Model of Bank Deposit Determination- Behavioural Model of Money Determination- Demand Determined View of Money Supply Process.

3.5. Measures of money supply; H- theory of money supply- Money Multiplier and Its Determination- Methods of Monetary Control- RBI Approach – High Powered Money- Inside and Outside Money–Money Supply Determination in an Open Economy.

**Unit- 4: Behavioural Foundations of Macroeconomics**

**(20 Hours)**

4.1. Consumption Function: Current Income Theories (Absolute Income Hypothesis of Keynes, Kuznets's Consumption Puzzle, Drift Hypothesis of Smithies and Relative Income Hypothesis of Duesenberry). (Self-Study)

4.2. Fischer's Inter-temporal Choice Model.

Normal Income Theories: Permanent income Hypothesis of Friedman and Life Cycle

Hypothesis of Modigliani et.al –Robert Hall's Random Walk Hypothesis (Self-Study)

4.1 Investment Function: Keynes's Investment Theory– MEC Approach – Accelerator Theory of Investment –Capital Stock Adjustment Principle – Financial Theory of Investment – Tobin's Q Ratio- Modigliani-Miller Theory –Metzler Inventory Cycle Model--- Jorgenson's Neoclassical Investment Model.

**Reference:**

Aschheim, Joseph and Hsieh, Ching-Yao (1970): Macroeconomics: Income and Monetary Theory, Charles E. Merrill Publishing Co. ( Unit- 1,2 & 3)

Blanchard, Olivier and Johnson, David R (2018): Macroeconomics, 8th Ed, Pearson. (Unit- 1& 2)

Brendan Sheehan (2009): Understanding Keynes' General Theory, Palgrave Macmillan (Unit- 1 & 2)

Carlin, Windy and Soskice, David (1990): Macroeconomics and the Wage Bargain: A modern Approach to Employment, Inflation, and the Exchange Rate, OUP. (Unit- 1,2)

Chirichiello, Giuseppe (1994): Macroeconomic Models and Controversies, The Macmillan Press Ltd. (Unit- 1& 2)

D'Souza, Errol (2012): Macroeconomics, 2nd Ed. Pearson India. (Unit-4)

De Vroey, Michel (2016): A History of Macroeconomics from Keynes to Lucas and Beyond, CUP. (Unit- 1& 2)

Dilip M.Nachane (2018): Critique of the New Consensus Macroeconomics and Implications for India, Springer. (Unit- 1& 2)

Edgmand, Michael R (1987): Macroeconomic Theory and Policy, PHI. (Unit-4)

- Felderer, Bernhard and Homburg, Stefan (1987): *Macroeconomics and New Macroeconomics*, Springer-Verlag. (Unit- 1&2)
- Galbraith, James, K and Darity, William Jr (1994): *Macroeconomics*, Houghton Mifflin Co, NJ. (Unit- 1,2 & 4)
- Gardner Ackley (1978): *Macroeconomic theory*, Collier Macmillan Ltd; International Edition. (Unit-1 & 4)
- Gärtner, Manfred (2009): *Macroeconomics*, 3rd Ed, Prentice Hall. (Unit- 1& 2)
- Ghatak, Anitha (1994): *Macroeconomics: A Mathematical Approach*, Concept Publishing Co, ND. (Unit- 1,2)
- Greenaway, David and Shaw G.K (1995): *Macroeconomics: Theory and Policy in UK*, 2nd Ed, Blackwell. (Unit-4)
- Heijdra, Ben J. (2017): *Foundations of Modern Macroeconomics*, 3rd Ed, OUP (Unit-1& 2)
- Hagger, A.1(1977): *Inflation: Theory and Policy*, MacMillan.
- Helmut Frisch (1983): *Theories of Inflation*, Cambridge University Press.
- Hillier, Brian (2006): *Macroeconomics: Models, Debates and Development*, Basil Blackwell. (Unit- 1& 2)
- Jagdish Handa (2009): *Monetary Economics*, 2nd Ed, Routledge. (Unit-3)
- Jansen, Dennis W and Delorme, Charles Jr and Ekelund, Robert B, Jr (1994): *Intermediate Macroeconomics*, West Publishing Co. (Unit-1,2 & 4)
- Junankar, P.N (1972): *Investment: Theories and Evidence*, Macmillan Education. (Unit-4)
- Keith Bain and Peter Howells (2003): *Monetary Economics: Policy and its Theoretical Basis*, Palgrave. (Unit-3)
- Laidler, D.F.W. (1977): *Demand for Money: Theory and Evidence*, Dum-Don Valley, New York (Unit-3)
- Levacic, Rosalind and Rebmann, Alexander (1982): *Macroeconomics: An Introduction to Keynesian- Neo-Classical Controversies*, 2nd Ed, MacMillan (Unit-1,2 & 4)
- Lewis, Mervyn and Mizen, Paul D (2000): *Monetary Economics*, OUP. (Unit-3)
- Makinen, Gail E. (1977): *Money, The Price Level, and Interest Rates: An Introduction to Monetary Theory*, Prentice Hall Inc. (Unit- 1,2 & 3)
- Natrrass, Nicoli and Varma, G. Visakh (2014): *Macroeconomics Simplified: Understanding Keynesian and Neoclassical Macroeconomic Systems*, Sage India. (Unit- 1,2)
- Pentacost, Eric (2000): *Macroeconomics: An Open Economy Approach*, MacMillan. (Unit- 1,2 & 4)



- Peterson, Wallace C and Estenson, Paul S (1992): *Income, Employment and Economic Growth*, 7th Ed, W.W Norton, NY. (Unit- 1,2 & 4)
- Pierce, David G.and Tysome, Peter J (1985): *Monetary Economics theories, evidence and policy*, Butterworth. (Unit-3)
- Pierre Picard (1993): *Wages and Unemployment: A Study in Non-Walrasian Macroeconomics*, Cambridge University Press. (Unit- 1& 2)
- Poindexter, Carl J (1976): *Macroeconomics*. The Dryden Press. (Unit-4)
- Scarth, William (2014): *Macroeconomics: The Development of Modern Methods for Policy Analysis*, Edward Elgar. (Unit- 1& 2)
- Serletis, Apostolos (2007): *The Demand for Money Theoretical and Empirical Approaches Second Edition*, Springer. (Chapters: 7,8 & 9) (Unit-3)
- Snowdon, Brian and Vane, Howard R (1997): *A Macroeconomics Reader*, Routledge.
- Snowdon, Brian and Vane, Howard, R (2005): *Modern Macroeconomics: Its Origins, Development and Current State*, Edward Elgar. (Unit- 1,2)
- Todd A. Knoop (2015): *Business Cycle Economics: Understanding Recessions and Depressions from Boom to Bust*, Praeger.
- Tsoufidis, Lefteris (2010): *Competing Schools of Economic Thought*, Springer. (Unit-1& 2)
- Venieris, Yiannis P and Sebold, D Frederick (1977): *Macroeconomics: Models and Policy*, John Wiley and Sons. (Unit-3 &4)
- Westaway, A J and Jones, T G Weyman (1977): *Macroeconomics theory, evidence and policy*, Longman. (Unit- 1,2, 3 &4)
- Williamson, Stephen D. (2018): *Macroeconomics*, 6th Ed, Pearson. (Unit- 1,2)

**Course Outcomes**

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand three outstanding orthodoxies, viz, Classical, Keynesian, Modern Neo-classical synthesis, Neo Keynesianism and Monetarism	K 2	1
2	To develop the aptitude to relate concepts with research and policy.	K 4	5
3	Understand key concepts, methodologies, theories, and techniques in modern macroeconomic analysis	K 2	2
4	Understand alternative approaches to analysing consumption, and investment, Critically evaluate the usefulness of macroeconomic techniques.	K 2	5

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Applying; K 4- Analysing; K 5-Evaluating; K 6-Creating.

**LEARNING PEDAGOGY**

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media, Group Discussions, Case Studies

**ASSESSMENT TOOLS**

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Quiz assignment, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
I	PG20EC103	<b>Indian Economy-I</b>	<b>Core-4</b>	<b>4</b>	<b>90</b>
Course Objectives					
<ul style="list-style-type: none"> <li>• This course offers an analytical introduction to the main aspects of the Indian economic policy and performance in the post-independence period.</li> <li>• It focuses on Indian economic problems in the light of relevant economic theories, and in a comparative perspective.</li> <li>• The course is expected to enable the students to appreciate the evolution of the economy, its institutional framework, nuances in using statistical information for analysing public policy, and to get familiar with the issues for research.</li> <li>• This course also enables the students to understand the pre-reform and post-reform development experience of the Indian Economy.</li> <li>• A thorough understanding of Indian economic policies is a must for post-graduate students of economics and that is what this course aims to develop among the students.</li> </ul>					

**Unit-1 – Structure and Growth of the Indian Economy****(25 Hours)**

- 1.1. India's Economic growth in historical perspective.
- 1.2. National Income – growth and measurement Database on Indian Economy.
- 1.3. Economic Planning – Development strategies - planning and development – debates on planning and import substitution -Rationale – Achievements – failures — crisis of 1991.
- 1.4. Economic Reforms – Structural Adjustment Programs – Neo-liberalism in India- Disinvestment Policy – PPP-impact of 25 years of reforms on various sectors of the economy- NITI Aayog- and its structure, NITI Aayog Verses Planning Commission.
- 1.5. Last three Finance commissions in India.

**Unit-2: Agriculture and Industry****(25 Hours)**

- 2.1. Productivity in agriculture; Land reforms; New technology in Indian agriculture- Green Revolution- Need for second Green Revolution; Modern farm inputs and marketing-; Commercialization and diversification.

2.2. Globalization and Indian Agriculture - New Agricultural Policy- WTO and- Indian Agriculture- Current Issues in Indian agriculture. Investments and subsidies in Indian agriculture - Agrarian distress and related issues- Govt. Supports and schemes in agriculture sector

2.3. Industrial Growth – Trends patterns and structure – industrial stagnation debates- Industrial Policies in India- Reforms in industrial sector – industry under globalization- Research and development – Technology transfer – Make – in – India initiatives- Small and Medium Scale Industries (MSMEs)- Role, problems and remedies- Role of FDI in industrialization process- ICT based industrial development strategy- Public Sector Enterprises -Make in India.

### **Unit-3: Service Sector and Infra-Structure**

**(20 Hours)**

3.1. Growth and performance of service sector in India – Pre and post-Independence period

3.2. Health and Education Infrastructure - Efficacy of social sector spending in India along with its implication for inclusive growth.

3.3. Energy, Transport, Telecommunication- recent infrastructure policy – Inadequacies and structural bottlenecks in infrastructure development- Trade in services- Global technological change and Indian IT boom. Challenges of India's Service sector.

### **Unit-4. Trade and External Sector**

**(20 Hours)**

4.1. Evolution of trade policies since independence.

4.2. External Sector reforms – Trade reforms – changing structure, composition and direction of India's foreign trade – Balance of Payment; Exchange rate- India and WTO -EXIM policy – SEZ.

4.3. FII and FDI in India – role of MNC's.

### **Reference:**

Acharya Shanker, Mohan Rakesh (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, New Delhi.

Agarwal A N (2017), Indian Economy: Problems of Development and Planning, Vikas Publishing House, New Delhi.

Ahluwalia Isher Judge (1985): 'Industrial Growth in India: Stagnation Since the Mid- Sixties'. Oxford University Press, New Delhi.

Ahulwaia, J.J. and I.M.D. Little (Eds.) (1999) *India's Economic Reforms and Development* (Essays in hon/ of Manmohan Singh) Oxford University Press, New Delhi.

Alternative Economic Survey, India, Alternative Survey Group (Recent Surveys), Rainbow Publishers, Zed Books, London.

Amir Ullah Khan and Harsh Vivek (2018): *State of the Indian Economy: Towards a larger constituency for second generation economic reforms*, Sage India.

Anthony P. D'Costa and Achin Chakraborty (2017): *The land Question in India: State, Dispossession and Capitalist Transition*. OUP.

Arvind Panagariya (2018): *Free Trade and Prosperity: How Openness Helps Developing Countries Grow Richer and Combat Poverty*, OUP.

Ashima Goyal (2015): *A Concise Handbook of the Indian Economy in the 21st Century*, OUP.

B A Prakash (ed) (2012) *The Indian Economy Since 1991: Economic Reforms and Performance*, Pearson, New Delhi.

Babu, Suresh M. (2018): 'Hastening Slowly: India's Industrial Growth in the Era of Economic Reforms'. Orient Black Swan, Hyderabad.

Balakrishnan Pulapre (Ed) (2012) *Economic Reforms and Growth in India*, Orient Black Swan, New Delhi.

Balakrishnan, P. (2010): 'Economic Growth in India: History and Prospect'. Oxford University Press, New Delhi.

Balakrishnan, P.; Das, M. & Parameswaran, M. (2017), 'The internal dynamic of Indian economic growth', *Journal of Asian Economics* 50, 46-61.

Balakrishnan, Pulapre and M Parameswaran (2007), "Understanding Economic Growth in India: A Prerequisite", *Economic and Political Weekly*, Vol. 42, No.27-28), pp. 2915-2922.

Baljit Kaur and Amarjit Singh Sethi (2007) 'Liberalisation and social sector expenditure: an interstate analysis in India' *Journal of Income and Wealth*, Vol.29(1), pp.79-92.

Bardhan R.K. (9<sup>th</sup> Edition) *The Political Economy of Development in India*, Oxford University Press, New Delhi.

Bedprakas Syam Roy (2017) *India's Journey Towards Sustainable Population*, Springer.

Bhagwati Jagdish and Arvind Panagariya (2012): 'India's Tryst with Destiny'. Collins Business, Noida, India.

Bhagwati, J. and S. Chakravarty (1969), 'Contributions to Indian Economic Analysis: A survey', *American Economic Review* 59, Supplement.

- Bhalotra Sonia (1998): 'The Puzzle of Jobless Growth in Indian Manufacturing'. Oxford Bulletin of Economics and Statistics, Vol. 60 No 1.
- Bijesh C Purohit (2014) Efficacy of Social Sector Expenditure in India, Routledge London
- Bose, Ashish (1996) "Demographic transition and demographic imbalance in India." Health Transition Review" Vol.6, pp.89-99.
- Buwa, R.S. and P.S. Raikhy (Ed.) (1997) Structural Changes in Indian Economy, Guru Nanak Dev University press, Amritsar.
- Byres T.J (1998): 'The Indian Economy: Major Debates since Independence'. Oxford University Press, New Delhi.
- Chakraborty Sukhamoy (1987): 'Development Planning: The Indian Experience'. Oxford University Press, New Delhi.
- Chakravarty, S. (1991), 'Development Planning: A Reappraisal', Cambridge Journal of Economics, 15, pp. 5-20.
- Chand, R. and Parappurathu, S. (2011). Historical and spatial trends in agriculture: Growth analysis at national and state level in India. IGIDR Proceeding/Projects Series no. PP-069-3b. Indira Gandhi Institute of Development Research (IGIDR), Mumbai.
- Chandrasekhar CP (2015) Indian Industrialization, ICSSR Research Surveys and Explorations, Oxford.
- Chetan Ghate (2016): The Oxford Handbook of the Indian Economy, OUP.
- DeLong, J. B. (2003), India since Independence: An analytic growth narrative, in Dani Rodrik, ed., 'In Search of Prosperity: Analytic Narratives on Economic Growth', Princeton University Press, Princeton NJ., , pp. 184-204.
- Desai, Bhupathi M & Others, (2011): Agricultural Policy Strategy, Instruments and Implementation: A Review and the Road Ahead, Economic & Political Weekly, Vol. xlvi No.53, December 21.
- Dipak Mazumdar, Sandip Sarkar (2008), Globalization, Labour Markets and Inequality in India, International Development Research Centre
- Economic Survey- Agriculture EPW VOL. 46, Issue 41 Multiple articles on Land acquisition and resettlement bill Oct. 2011.
- Gaurav Datt and Martin Ravallion (1998) 'Why have Some Indian States Done Better than Others at Reducing Rural Poverty?' *Economica*, 65(257), pp.17-38
- Gopalji and Suman Bhakri (2013), Indian Economy, Performance and Policies, Pearson, New Delhi.
- Government of India, Census of India (2011); Paper I, Paper II and Paper III.

- Gulati, A. and Fan, S. (2008): 'The Dragon and the Elephant: Learning From Agricultural and Rural Reforms in China and India'. *Economic and Political Weekly*, June 28, 137-144.
- Gulati, Ashok (2011): This Decade for Agriculture, *The Economic Times*, July 22.
- Haque, T. (2005), Resource use efficiency in Indian Agriculture, *Indian J. Of Agri. Econ.* 61(1):65- 76.
- India 2019, Publication Division, New Delhi.
- India: A prerequisite', *Economic and Political Weekly* 62(27), 2915--2922.
- Jagadish Bhagwati, Aravind Panagariya (2012), *Reforms and Economic Transformation in India*, Oxford University Press.
- Jalan B (2017): 'India: Priorities for the Future'. Penguin Random House, New Delhi.
- Jalan, B. (2004). *The Indian Economy: Problems and Prospects*. Penguin: New Delhi
- Janakarajan.S, L. Venkatachalam and Rathinaswamy Maria Saleth (2015): *Indian Economy in Transition: Essays in Honour of C.T. Kurien*. Sage India.
- Jean Derezé and Amartya Sen (1996): 'An Uncertain Glory: India and its Contradictions'. Penguin Books Ltd. London.
- Jean Derezé and Amartya Sen (1996): 'Indian Development: Selected Regional Perspectives'. Oxford University Press, New Delhi.
- Jeffrey Sachs, Ashutosh Varshney and Nirupam Bajpai (eds)(1999): *India in the Era of Economic Reforms*, Oxford University Press, New Delhi.
- Kaushik Basu and Annemie Maertens (Editors) 2010, *The Concise Oxford Companion to Economics in India*, OUP India
- Kohli, A. (2006): *Politics of Economic Growth in India, 1980-2005, Part I: the 1980s*, *Economic and Political Weekly*, April 1, 2006.
- Kruger O Anne ed (2003). *Economic Policy Reforms & Indian Economy*, Oxford University press, New Delhi
- M.M. Sury, Vibha Mathur (2013), *Five Year Plans of India: First Five Year Plan (1951-52 to 1955-56 to Twelfth Five-year Plan (2012-13 to 2016-17)*, Volume I, New Century Publication.
- M.R. Saluja (2017): *Measuring India: The Nation's Statistical System*, OUP.
- Mahendradev S (2010), *Inclusive Growth in India*, Oxford University Press, New Delhi
- Marco Ferroni (2012): *Transforming Indian Agriculture- India 2040*, Sage India.
- Mohan Thite, Adrian Wilkinson & Pawar (2016): *Emerging Indian Multinationals: Strategic Players in a Multipolar World*, OUP.

- NABARD [National Bank for Agricultural and Rural Development]. 2014. Agricultural Credit in India: Trends, Regional Spreads and Data Base Issues. [on-line]. Available: [https://www.nabard.org/Publication/OP\\_A59.pdf](https://www.nabard.org/Publication/OP_A59.pdf) [15 Nov. 2015].
- Nagaraj R (2003): Industrial Policy and Performance since 1980: Which Way Now? Economic and Political Weekly, August 30, 2003.
- Narayana Moorthy, A. (2013), Profitability in crop cultivation in India: Some evidence from cost of cultivation survey data, Indian J. Of Agri. Econ.68(1):104-121
- Nayak, Pulin, Economic Development of India (Critical Concepts in Economics), London & New York, Routledge, 2015
- Nayyar Deepak (1994): 'Industrial Growth and Stagnation: The Debate in India', Oxford University Press, New Delhi.
- Nayyar Deepak 1994(ed): Industrial Growth and Stagnation, OUP.
- Nilanjan Banik (2015): The Indian Economy: A Macroeconomic Perspective. Sage India.
- P.S. Krishnan (2018): Social Exclusion and Justice in India, Routledge.
- Pulin B Nayak, Bishwanathe Golar and Pradeep Agarwal (2010): India's Economy and Growth: Essays in Honour of VKRV Rao, Sage India.
- Raghbendra Jha (2018): Facets of India's Economy and Her Society Vol.II, Palgrave.
- Raghbendra Jha (2018): Facets of India's Economy and Her Society Volume II: Current State and Future Prospects, Palgrave.
- Raj. K. N. (1984): 'Some Observations on Economic Growth in India over the Period 1952-53 to 1982-83', Economics and Political Weekly, Vol. 19, Issue No. 41.
- Rajesh Raj S.N. & Kunal Sen (2016): Out of the Shadows? The Informal Sector in Post-reform India, OUP.
- Rajiv Kumar and Vijay Kelkar (1990): 'Industrial Growth in the Eighties- Emerging Policy Issues', Economic and Political Weekly, Vol. 25, Issue No. 4.
- Rakesh Mohan (ed) (2017): 'India Transformed- 25 years of Economic Reforms'. Penguin Random House, New Delhi.
- Ranjit Sau (1988): 'The Green Revolution and Industrial Growth in India: A Tale of Two Paradoxes and a Half'. Economic and Political Weekly, April16, 1988.
- Rao, V.M. & P.D. Jeromi (2000): Modernizing Indian Agriculture: Priority tasks and critical policies, Study No. 21, Development Research Group, Department of Economic Analysis and Policy, Reserve Bank of India, Mumbai.
- Rodrik, D. & Subramanian, A. (2005), 'From "Hindu Growth" to Productivity Surge: The Mystery of the Indian Growth Transition', IMF Staff Papers 52(2), 193-228.



- Rout, H.S. and P. Mishra (2015) *Social Sector in India: Issues and challenges*, Cambridge Scholar Publishing,
- Roy Tirthankar (2000): 'The Economic History of India 1857-1947', Oxford University Press, New Delhi.
- Roy, M. and S. Sinha Roy (2016). *International Trade and International Finance: Explorations of Contemporary Issues*. Springer: Singapore.
- Ruddar Dutt and Sundaram (2016): *Indian Economy*, S Chand and Company, New Delhi
- Rudra Ashok (1975): 'Indian Plan Models'. Allied Publishes, New Delhi.
- S. Mahendra Dev (2017): *India Development Report 2017*, OUP.
- Sangeeta Verma and P.C. Bodh (2018): *Glimpses of Indian Agriculture*, OUP
- Sankar Kumar Bhaumik (2018): *Reforming Indian Agriculture: Towards employment generation and poverty reduction Essays in Honour of G K Chandha*, Sage India.
- Saumya Chakrabarti (2016): *Inclusive Growth and Social Change Formal–Informal–Agrarian Relations in India*, OUP
- Sikdar, S (2013). *Capital Flows and Foreign Exchange Rate Management*. Oxford: New Delhi.
- T. J. Byres (ed): *The State, Development Planning and Liberalization in India*, OUP.
- The Ministry of Finance & Government (2018): *Economic Survey 2017-18 (Volume 1 and Volume 2)*, OUP.
- Time Dyson (2018): *A Population History of India From the First Modern People to the Present Day*, OUP.
- Uma Kapila (2018): *Indian Economy: Performance and Policies, 2018-19*.
- Uma Kapila (2019): *Indian Economy Since Independence: A comprehensive and critical analysis of India's economy, 1947-2017 (Academic Foundation)*
- Vaidyanathan, A (2010): *Agricultural Growth in India: The Role of Technology, Incentives and Institutions*, OUP, New Delhi.
- Vijay Joshi (2016): 'India's Long Road: The Search for Prosperity'. Penguin Random House, New Delhi.
- Vijay Joshi and I. M. D Little (2018): *India's Economic Reforms, 1991-2001*, OUP.
- Zaad Mahmood (2017): *Globalization and Labour Reforms: The Politics of Interest Groups and Partisan Governments*, OUP.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the evolution of the economy, its institutional framework, nuances in using statistical information for analysing public policy	K 2	1
2	Get familiar with the issues for research	K 2	3
3	Understand the pre-reform and post-reform development experience of the Indian Economy	K 2	1
4	Familiar Indian economic policies	K 1	1

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
I	PG20EC104	Development Economics	Core	4	90

Course Objectives

- Development economics is an exciting and challenging branch of Economics. The approach of this course is to provide a comprehensive introduction to the theoretical paradigms of economic development. In a fast-moving global economic order, there is a persistent demand to synchronize the approaches, theories and development issues for a better understanding of the problems of the developing economies.
- The scope is interdisciplinary in nature, incorporating non-economic dimensions like culture, norms, and values as well as political, historical and social processes. The discourse, however, is essentially based on the logic and theoretical framework of standard economic analysis.
- The objective of this course is to familiarize students with the conceptual routes, theoretical dynamics and practical strategies of growth and development. It is expected that this course would orient them towards major themes of development, lead them towards more methodical probes and equip them with adequate analytical knowledge. The aim of this course is to provide an advanced treatment of the main issues, concepts and techniques in modern growth theory.
- At the end of this course, students should be able
  - (i) to understand and critically evaluate alternative theories of growth.
  - (ii) show a clear understanding of the recent literature, both empirical and analytical, on theories of underdevelopment and growth in developing countries;
  - (iii) be able to evaluate critically some of the results in the literature, particularly those related to development issues.

**Module-I: Economic Development –Overview (Self-Study) (10 Hours)**

1.1. Meaning and measurement of economic development: conventional, human development index (Human Development Index, Gender Related Development Index, Gender Empowerment Measure, Gender Inequality Index, Human Poverty Index).

1.2. Quality of life indices: Entitlements approach- Capabilities and Functioning- Development as Freedom- Based Approach- Three Core Values of Development

1.3. Development Gap -Inequality in income distribution- Kuznets Inverted U hypothesis- Lorenz Curve and Gini-coefficient - Concept of Sustainable Development

**Unit- 2: Theories of Underdevelopment (25 Hours)**

2.1. Vicious Circle of Poverty—Dualistic Theories. – Social – Financial and Technical Dualism Prebisch- Singer thesis and Myrdal thesis: Backwash and spread effect- Circular and cumulative causation- Rostow's stages of growth. —Vent for Surplus theory of Hla Myint— Stable Theory.

2.2. Rural-urban migration and urban unemployment (Harris-Todaro model).

2.3. Political Economy of Underdevelopment (Theory of dependency): Paul Baran, Gundar Frank, Samir Amin and Emmanuel Wallerstein (World systems approach).

**Unit- 3: Theories of Development and Growth (25 Hours)**

3.1. Classical Theory of Development—Adam Smith, David Ricardo, Karl Marx and Schumpeter.

3.2. Theories of Economic Growth: Harrod-Domar Model.

3.3. Neo-Classical Growth Models – Solow and Meade.

3.4. Cambridge Growth Models: Mrs. Joan Robinson's and Kaldor's Growth Models.

3.5. Endogenous Growth Models: (AK, Arrow's, Romer, Ramsey Model,)

**Unit- 4: Approaches to Development (20 Hours)**

4.1. Theory of Big Push- Critical Minimum Effort Thesis- Low Income Equilibrium Trap. - Balanced and Unbalanced Growth. (Self-Study)

4.2. Development with Unlimited Supply of Labour, Ranis and Fei Model - Michael Kremer's O-Ring Theory of Economic Development-- The Jorgenson model and Dixit-Marglin model.

**Unit- 5: Critical Issues in Development Process (10 Hours)**

5.1. Role of Financial Institutions in Economic Development: (Acemoglu and Zilibotti model)

5.2. Globalization and Development: Views of Stiglitz.

5.3. Development and Human Rights

5.4. Social Capital and Development.

5.5. Crime, Social Exclusion and Development.

5.6. Climate Change and Development.

5.7. Energy and Development .

**Reference:**

- A. P. Thirlwall (2011): Growth and Development with special reference to developing economies, 7th Ed, McMillan.
- Acemoglu, D. (2009): Introduction to Modern Economic Growth. Princeton University Press.
- Adam Szirmai (2014): The Dynamics of Socio-Economic Development: An Introduction, 2nd Ed, Cambridge University Press.
- Aghion, P. & Howitt, P. (2008), The Economics of Growth, MIT Press, Cambridge MA.
- Alain de Janvry, Elisabeth Sadoulet (2016): Development Economics: Theory and Practice, Routledge.
- Charles I. Jones and Dietrich Vollrath (2013): Introduction to Economic Growth, 3rd Ed, W. W. Norton & Company.
- David Alexander Clark (2006): The Elgar Companion to Development Studies, David N. Weil (2013): Economic Growth, 3rd Ed, Pearson.
- Dwight H. Perkins, Steven Radelet, David L. Lindauer and Steven A. Block (2013): Economics of Development, 7th Ed, W. W. Norton & Company
- Meier, G.M and J.E. Rauch (2014): Leading Issues in Economic Development, OUP.
- Gerard Roland (2016): Development Economics, Routledge.
- Graham Hacche (1987): The Theory of Economic Growth: An introduction, Macmillan.
- Hywel G. Jones (1976): An Introduction to Modern Theories of Economic Growth, McGraw-Hill.
- Irma Adelman (1961): Theories of Economic Growth and Development, Stanford University
- James M. Cypher, James L. Dietz (2014): The Process of Economic Development, 4th Ed, Routledge.
- John Rapley (2007): Understanding Development: Theory and Practice in the Third World, 3rd Ed, Lynne Rienner Publishers.
- Martha Nassbaum and Amartya Sen (1993): The Quality of Life, the World Institute for Development Economics.
- Michael P. Todaro, Stephen C. Smith (2017): Economic Development 7th Ed, Pearson Addison Wesley.
- Preston, P.W(1996): Development Theory: An Introduction, Blackwell Publishers.
- Richard Peet and Elaine Hartwick (2009): Theories of Development: Contentions, Arguments, Alternatives, 2nd Ed, The Guilford Press.
- Robert Joseph Barro, Xavier Sala-i-Martin (2009): Economic Growth, 2nd Ed, MIT Press.
- Subrata Ghatak (2008): Introduction to Development Economics, 4th Ed, Routledge.

Thirlwall, A.P and Penélope Pacheco-López (2017): Economics of Development: Theory and Evidence, 10th Ed, Macmillan (Palgrave) Education UK

Vandana Desai and Robert B. Potter (2014): The Companion to Development Studies, 3rd Ed, Routledge.

Wayne Nafziger (2006): Economic Development, 4th Ed, Cambridge University Press.

Yujiro Hayami and Yoshihisa Godo (2005): Development Economics: From the Poverty to the Wealth of Nations, 3rd Ed, OUP.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Familiarize with the conceptual routes, theoretical dynamics and practical strategies of growth and development	K 2	1
2	Understand the major themes of development which will help in the methodological probes and equip them with adequate analytical knowledge	K 2	1
3	Understand and critically evaluate alternative theories of growth	K 2	1
4	Understand the recent literature, both empirical and analytical, on theories of underdevelopment and growth in developing countries;	K 2	1
5	Evaluate critically some of the results in the literature, particularly those related to development issues	K 5	5

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Applying; K 4-Analysing; K 5-Evaluating; K 6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Quiz assignments, Terminal examinations, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
I	PG20EC105	<b>Mathematics for Economics</b>	<b>Core</b>	<b>4</b>	<b>90</b>
<b>Course Objectives</b>					
<ul style="list-style-type: none"> <li>• The goal of the course is to make students understand, assimilate and thus capable of using Mathematics required for studying Economics at the master's level.</li> <li>• The course presents the basic mathematical tools which are indispensable for better cognizance of almost all fields of Economics, both applied and theoretical.</li> <li>• The cardinal end of the course is to equip the students themselves in a comprehensive manner with the mathematical concepts Matrices and its applications, Differential Calculus, Integral Calculus and Optimization Techniques that are required for understanding the advanced and core courses of Economics in a broader way.</li> <li>• By the end of this course, the student is expected to be familiar with basic concepts of Mathematics and acquire analytical skills to apply these to analyse problems in Economics.</li> <li>• Students will be trained to (i) introduce several mathematical tools used in modern Economics; (ii) illustrate the use of these tools by applying them to various well-known economic models</li> </ul>					

### **Unit-1: Linear algebra (15 Hours)**

- 1.1. Definitions of vector and matrix.
- 1.2. Types of matrices, addition, subtraction and multiplication of matrices.
- 1.3. Determinants, Minors, Cofactors, Adjoint and Inverse of a matrix.
- 1.4. Solution of a system of linear equations - Cramer's rule and Inversion method.
- 1.5. Rank of a matrix -Linear independence of vectors.
- 1.6. Some applications in Economics - Input -output analysis

### **Unit-2: Differential Calculus (25 Hours)**

- 2.1. Limit of a function - Derivative of a function.
- 2.2. Rules of differentiation - Higher order derivatives - L'Hospital rule for finding the limit of a function.

- 2.3. Differentiation of implicit function - Partial and total derivative of a function with several Variables Maxima and minima of a function.
- 2.4. Curvature properties - Convexity and concavity - Points of inflection.
- 2.5. Properties of homogeneous functions - Euler's theorem.
- 2.6. Some applications in Economics- Derivation of Marginal cost, Marginal revenue functions - Derivation of point elasticity, problems relating to indifference curve and isoquant. Production function, utility functions, cost functions. Cobb- Douglas production function, CES production function - determination of partial elasticities of demand.

**Unit-3: Integral Calculus (25 Hours)**

- 3.1. Indefinite integrals - rules of integration, initial conditions and boundary conditions.
- 3.2. Integration by substitution, Integration by parts - Integration of natural exponential functions.
- 3.3. Definite integrals - properties of definite integrals
- 3.4. Area under a curve, area between curves
- 3.5. Difference equations and differential equations (basic concepts only).
- 3.6. Improper integrals - Beta and Gamma integrals.
- 3.7. Some applications in Economics - Consumer surplus and producer surplus. Cobweb model.

**Unit 4: Linear Programming (25 Hours)**

- 4.1. Formulation of LPP and solution using graphical and Simplex methods.
- 4.2. Duality theory - constrained optimization with inequality and non-negativity constraints.
- 4.5. Applications from Economics and Finance.

**Reference:**

- 1. Akira Takayama. (1985), Mathematical Economics, 2nd Ed, Cambridge University Press.
- 2. Allen, R. G. D. (2003), Mathematical Analysis for Economists, The Macmillan Press, Delhi.
- 3. Anthony M. and Biggs N. (1996), Mathematics for Economics and Finance, Cambridge University Press.
- 4. Chiang and Wainwright (2018): Fundamental Methods of Mathematical Economics, 4<sup>th</sup> Ed, McGraw-Hill.



5. Edward Dowling (2011): Schaum's Outline of Introduction to Mathematical Economics, 3<sup>rd</sup> Ed, McGraw-Hill.
6. Holden K. and Pearson A.W. (1992): Introductory mathematics for Economics and Business, Second Edition, The Macmillan Press Ltd.
7. Malcolm Pemberton and Nicholas Rav (2016): Mathematics for Economists, 4<sup>th</sup> Ed, Manchester University Press

#### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the basics of Mathematics, required for studying Economics	K2	1
2	Explain and evaluate critically the theoretical arguments of Economics with the help of Mathematical tools and methods.	K3	1
3	Create and analyze mathematical models for observed Economic phenomena.	K6	1,2,6

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

#### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through Learning Management Systems.

#### ASSESSMENT TOOLS

Test Paper, Assignments, Seminar

**11. SECOND SEMESTER**

<b>Course Code</b>	<b>Title of the Course</b>	<b>Type of the Course</b>	<b>Hours per week</b>	<b>Credits</b>
PG20EC206	<b>Microeconomics-II</b>	<b>Core</b>	<b>05</b>	<b>04</b>
PG20EC207	<b>Macroeconomics-II</b>	<b>Core</b>	<b>05</b>	<b>04</b>
PG20EC208	<b>Indian Economy-II</b>	<b>Core</b>	<b>05</b>	<b>04</b>
PG20EC209	<b>Kerala Economy</b>	<b>Core</b>	<b>05</b>	<b>03</b>
PG20EC210	<b>Statistics for Economics</b>	<b>Core</b>	<b>05</b>	<b>04</b>

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>II</b>	PG20EC206	<b>Microeconomics –II</b>	<b>Core</b>	<b>4</b>	<b>90</b>
<b>Course Objectives</b>					
<ul style="list-style-type: none"> <li>• This is the second part of the core Microeconomics Sequence. This course is designed to provide students with a sound understanding of advanced microeconomic theory.</li> <li>• It will cover the aspects of microeconomic theory that is required to analyse contemporary economics issues and to create new models to explain the behaviour of individuals, firms, and markets, and to evaluate economic policies.</li> <li>• The topics will include alternative theories of firms’ behaviour, information, institutional, behavioural economics, theory of general equilibrium and welfare economics.</li> <li>• This course is intended to acquaint the student with decision making in the context of market interdependence, complexity, uncertainty and informational asymmetry; give insights into developments in the areas of general equilibrium and welfare economics; and to enable the student to apply microeconomic principles in the areas of industrial organization, exchange, and welfare.</li> </ul>					

**Unit-1: Theories of Distribution (15 Hours)**

- 1.1. Marginal Productivity Theory of distribution - Product Exhaustion Problem: Euler's theorem and adding up controversy - Clark-Wicksteed-Walras product exhaustion theorem
- 1.2. Macro theories of distribution: Ricardo-Marx- Kalecki – Kaldor.

**Unit- 2: Theories of Firm (15 Hours)**

- 2.1. Why firms, their size and structure: Ronald Coase- O Williamson
- 2.2. Team production approach: Armen Alchian and Harold Demsetz
- 2.3. Hierarchical structures: U form and M form

**Unit- 3: Alternative Theories of the Firm (20 Hours)**

- 3.1. Hall and Hitch Report and Full Cost Pricing
- 3.2. Gordon’s attack on Marginalism
- 3.3. Theory of Limit Pricing: Bain – Sylos - Labini

3.4. Managerial Theories: W J Baumol- O Williamson – Marris

3.5. Behavioural theory of Cyert and March

**Unit- 4: Information, Institution and Behavioural Economics (20 Hours)**

4.1. Information Economics: Asymmetric Information - the market for Lemons- the Principal Agent Problem - Moral Hazard - Adverse Selection-Screening and Market Signalling.

4.2. New Institutional Economics: Transaction costs - Identification and measurements of transaction costs - Coase Theorem - Bounded Rationality - defining Property Rights - Problems of Ill-defined Property rights

4.3. Behavioural Economics: Meaning - framing effect - anchoring effect – uncertainty - Role of time and emotions in economic decisions - altruism and common good.

**Unit- 5: General Equilibrium and Welfare Economics (20 Hours)**

5.1. General Equilibrium: Partial and General Equilibrium - Walrasian General Equilibrium System - 2x2x2 General Equilibrium Model – Graphical illustration of 2x2x2 General equilibrium model - Existence, Uniqueness and Stability of an Equilibrium- Brouwer's Fixed Point Theorem

5.2. Welfare Economics: Kaldor-Hicks compensation criteria - Scitovsky Double Criteria - , - Social Welfare function of Bergson and Samuelson - Arrow's impossibility theorem - Rawl's theory of justice and equity - Sen's Capability Theory - Nussbaum's Central Capabilities - Easterlin Paradox

**Reference:**

A. Koutsoyiannis (1985): *Modern Microeconomics*, 2<sup>nd</sup> Ed, MacMillan Education (Reprint).

Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green (2005): *Microeconomic Theory*, OUP.

Austan Goolsbee, Steven Levitt and Chad Syverson (2013): *Microeconomics*, Worth Publishers (chapter 15- information economics -17 behavioural economics)

B. Douglas Bernheim and Michael D. Whinston (2016): *Microeconomics*, McGrawHill. (Chapter 14 transaction cost, information and behavioural economics. Chapter 18- information economics Chapter 9 information economics)

- Christopher Snyder, Walter Nicholson and Robert Stewart (2015): *Microeconomic Theory: Basic Principles and Extensions*, Cengage Learning.
- David Besanko and Ronald R. Braeutigam (2014): *Microeconomics*, 4<sup>th</sup> Ed, John Wiley and Sons, Inc. Edition, South Western Cengage Learning.
- Genaro C. da Costa (2005): *Value and Distribution in Neoclassical and Classical System*, 2<sup>nd</sup> Ed, Himalaya Publishers, Mumbai.
- Geoffrey A. Jehle and Philip J. Reny (2014): *Advanced Microeconomic Theory* 3<sup>rd</sup> Ed, Prentice Hall.
- Hal R. Varian (2014): *Intermediate Microeconomics with Calculus*, 1<sup>st</sup> Ed, W. W. Norton & Company.
- Hal R. Varian (2017): *Intermediate Microeconomics: A Modern Approach*, 10<sup>th</sup> Ed, WW Norton & Co, NY.
- Henderson, M. and R.E. Quandt (1989): *Microeconomic Theory: Mathematical Approach*, 3<sup>rd</sup> Ed, McGraw Hill.
- Jeffrey M. Perloff (2016): *Microeconomics with Calculus*, 3<sup>rd</sup> Ed, Pearson.
- Judy A. Whitehead (2015): *Microeconomic: A Global Text*, Routledge.
- Maria Moschandreas (1994): *Business Economics*, Cengage Learning.
- Robin Bade and Michael Parkin (2017): *Foundations of Microeconomics*, 7<sup>th</sup> Ed, Pearson.
- Saul Estrin, David Laidler and Michael Dietrich (2016): *Microeconomics*, 5<sup>th</sup> Ed, Prentice Hall (Chapter 25 Economics of Information)
- Snyder and Nicholson (2016): *Microeconomic Theory: Basic Principles and Extensions*, 11<sup>th</sup> ed, Pearson. (Chapter 18 Information Economics)
- Steven E. Landsburg (2017): *Price Theory and Applications*, 8<sup>th</sup> Ed. Cengage Learning.
- Thomas J Nechyba (2010): *Microeconomics: An Intuitive Approach with Calculus*.
- William A. McEachern (2017): *Principles of Microeconomics*, 4<sup>th</sup> Ed, Cengage Learning.
- Yew-Kwang Ng (2004): *Welfare Economics: Towards a More Complete Analysis*, Palgrave-Macmillan

**Course Outcomes**

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Make decisions in the context of market interdependence, complexity, uncertainty and informational asymmetry	K 5	1 & 5
2	Get insights into developments in the areas of general equilibrium and welfare economics	K 2	2
3	To apply microeconomic principles in the areas of industrial organization, exchange, and welfare	K 3	2 & 3
4	Understanding of advanced microeconomic theory	K 2	1

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3- Applying; K 4- Analyzing; K 5- Evaluating; K 6- Creating.

**LEARNING PEDAGOGY**

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

**ASSESSMENT TOOLS**

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Quiz assignments, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>II</b>	PG20EC207	<b>Macroeconomics -II</b>	<b>Core</b>	<b>4</b>	<b>90</b>
<b>Course Objectives</b>					
<ul style="list-style-type: none"> <li>• Analysing today’s hot-button policy issues requires approaching macroeconomic theory with the models that researchers and policymakers employ. The second part of macroeconomics intendeds to present the students with a firm grounding in modern macroeconomic thoughts.</li> <li>• It pays special heed to the major developments in the classical and Keynesian orthodoxy with clear historical perspectives. Here the emphasis is both on competing hypotheses and analytical techniques.</li> <li>• The principal objective of the course is to provide the students with an intuitive understanding of both the sources of controversies and how the debates have led to the development of modern macroeconomics.</li> <li>• At the end of this course students should be able to: <ul style="list-style-type: none"> <li>(i) Understand the strengths and weakness of the main macroeconomic tools and models used in modern macroeconomics;</li> <li>(ii) Learn to evaluate and critically compare results in alternative macroeconomic models; and</li> <li>(iii) Understand the importance and limitations of modelling assumptions for macroeconomic policy.</li> </ul> </li> </ul>					

**Unit- 1: New Classical Macroeconomics (20 Hours)**

1.1.Main Propositions of NCM: The Rational Expectations Hypothesis-Continuous Market Clearing - The Lucas Supply Curve - Rational Expectations -

1.2.The New Classical Economics and the Business Cycle - The Ineffectiveness of Government Intervention - The Lucas Critique

1.3.Monetary Policy in the NCM and the Philips Curve -Credibility and Dynamic Time-Inconsistency.

**Unit- 2: Real Business Cycle and Supply-Side Economics**

**(20 Hours)**

- 2.1. Real Business Cycles Model: Labour Market in RBC Model—Intertemporal Substitution.
- 2.2. AS- AD in RBC Model—Supply Shocks in RBC Model-- Technology Shocks- Neutrality of Money and Flexibility of Wages and Prices- Stabilization Policy
- 2.3. Supply side Economics: Main features- and Types of supply-side policies -Tax (Laffer Curve), incentive and production- SSE and role of the Government. 7

**Unit- 3: New Keynesian School and Post-Keynesian Economics**

**(30 Hours)**

- 3.1. New Keynesian School: Imperfect Competition and Price Setting – Sticky Nominal Wages—Staggered Wage-Contract Theory.
- 3.2. Sticky Price Model: Menu Costs and Demand Externalities.
- 3.3. Sticky Real Wages: Asymmetric Information Model-Implicit Contract Theory- Insider Outsider Model and Hysteresis.
- 3.4. Efficiency Wage Theories of Involuntary Unemployment: - Shapiro–Stiglitz Model - Turnover Cost-Selective Theory—On the Job Efficiency -Shirking Theory and Coordination Failure- Policy Implications of NKE.
- 3.5. Search and Matching Models-DMP Model.
- 3.6. Post-Keynesian Economics (PKE): Essentials Characteristics of Post Keynesian Economics - Various Strands of PKE- Principles of Effective Demand and Labour Market:— Consumption Theory-Pricing Theory and Distribution of Income---Expectation—Investment Theory Money: Endogenous Supply of Money and Circuit Theory- Minsky’s Financial Instability Hypothesis-Path Dependency and Hysteresis-Role of State- Fiscal and Monetary Policy in PKE

**Unit- 4: Macroeconomic Theories of Business Cycles**

**(20 Hours)**

- 4.1. Samuelson’s Interaction between Multiplier and Accelerator. Hicksian theory of Cycles. Kaldor’s model of Cycles. Goodwin’s Non-Linear Model. Kalecki’s Theory of Cycles and Dynamics of a Capitalist Society and Political business cycles.



4.2. Financial crisis of 2008: The Roots of the Current Crisis -Financial Innovation and Agency Problems in the Mortgage Markets. - Asymmetric Information and Credit Rating Agencies-Residential Housing Prices (The Subprime Debacle)

4.3. Financial Deregulation and Securitization.

### Reference:

Agenor, Pierre-Richard and Montiel, Peter J. (2015): Development Macroeconomics 4<sup>th</sup> Ed, Princeton University Press, Princeton.

Bober, Stanley (1968): The Economics of Cycles and Growth, New York: John, Wiley and Sons

Carlin, Andy and Soskice, David (1990): Macroeconomics and the Wage Bargain: A modern Approach to Employment, Inflation, and the Exchange Rate, OUP.

Chirichiello, Giuseppe (1994): Macroeconomic Models and Controversies, The Macmillan Press Ltd.

Dilip M. Nachane (2018): Critique of the New Consensus Macroeconomics and Implications for India, Springer.

D'Souza, Errol (2012): Macroeconomics, 2<sup>nd</sup> Ed. Pearson India. (Module-II)

De Vroey, Michel (2016): A History of Macroeconomics from Keynes to Lucas and Beyond, CUP.

Felderer, Bernhard and Homburg, Stefan (1987): Macroeconomics and New Macroeconomics, Springer-Verlag.

Galbraith, James, K and Darity, William Jr (1994): Macroeconomics, Houghton Mifflin Co,

Gärtner, Manfred (2009): Macroeconomics, 3<sup>rd</sup> Ed, Prentice Hall.

Ghatak, Anitha (1994): Macroeconomics: A Mathematical Approach, Concept Publishing Co, ND.

Harcourt, G. C. (2006): The Structure of Post-Keynesian Economics the Core Contributions of the Pioneers, CUP. (Module-III-B)

Heijdra, Ben J. (2017): Foundations of Modern Macroeconomics, 3<sup>rd</sup> Ed, OUP

Hillier, Brian (2006): Macroeconomics: Models, Debates and Development, Basil Blackwell.

Homburg, Stefan (2017): A Study in Monetary Macroeconomics, OUP.

Jansen, Dennis W and Delorme, Charles and Ekelund, Robert B, Jr (1994): Intermediate Macroeconomics, West Publishing Co.

- Knoop, Todd A. (2015): Business Cycle Economics: Understanding Recessions and Depressions from Boom to Bust, Praeger.
- Lavoie, Marc (2006): Introduction to Post-Keynesian Economics, Palgrave. (Module-III-B)
- Lavoie, Marc (2014): Post-Keynesian Economics: New Foundations, Edward Elgar. (Module-III-B)
- Levaccic, Rosalind and Rebmann, Alexander (): Macroeconomics: An Introduction to Keynesian- Neo-Classical Controversies, 2<sup>nd</sup> Ed, MacMillan
- Paul Davidson (1994): Post Keynesian Macroeconomic Theory, Edward Elgar, 1994. (Module-III-B)
- Peel, David and Minford, Patrick (2016): Advanced Macroeconomics: A Primer, Edward Elgar.
- Pentacost, Eric (2000): Macroeconomics: An Open Economy Approach, Macmillan.
- Peter Galba'cs (2015): The Theory of New Classical :Macroeconomics: A Positive Critique, Springer.
- Peterson, Wallace C and Estenson, Paul S (1992): Income, Employment and Economic Growth, 7<sup>th</sup> Ed, W W Norton, NY.
- Phelps, E. (1990): Seven Schools of Macroeconomic Thought, Oxford University Press, Oxford
- Philip Arestis (1992): Post-Keynesian Approach to Economics, Edward Elgar (Module-III-B)
- Richard P.F. Holt and Steven Pressman (2001) (Ed): A New Guide to Post Keynesian Economics, Routledge.
- Romer, David (1996): Advanced Macroeconomics 4<sup>th</sup> Ed, McGraw-Hill.
- Rousseas, Stephen (1999): Post Keynesian Monetary Economics MacMillan. (Module-III-B)
- Scarth, William (2014): Macroeconomics: The Development of Modern Methods for Policy Analysis, Edward Elgar.
- Snowdon, Brian and Vane, Howard R (1997): A Macroeconomics Reader, Routledge.
- Snowdon, Brian and Vane, Howard, R (2005): Modern Macroeconomics: Its Origins, Development and Current State, Edward Elgar.
- Taylor, Lance (2004): Reconstructing Macroeconomics: Structuralist Proposals and Critiques of the Mainstream, Harvard University Press.
- Tsoufidis, Lefteris (2010): Competing Schools of Economic Thought, Springer.
- Westaway, A J and Jones, T G Weyman (1977): Macroeconomics theory, evidence and policy, Longman. (Module-IV 4.1.)
- Williamson, Stephen D. (2018): Macroeconomics, 6<sup>th</sup> Ed, Pearson.

To provide the students with an intuitive understanding of both the sources of controversies and how the debates have led to the development of modern macroeconomics

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the strengths and weakness of the main macroeconomic tools and models used in modern macroeconomics;	K 2	2 & 8
2	To evaluate and critically compare results in alternative macroeconomic models	K 5	2 & 5
3	Understand the importance and limitations of modelling assumptions for macroeconomic policy.	K 2	5

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>II</b>	PG20EC208	<b>Indian Economy-II</b>	<b>Core</b>	<b>4</b>	<b>90</b>
Course Objectives					
<ul style="list-style-type: none"> <li>• The Objectives of this course would be to hone the analytical acumen of the student by highlighting, and integrated approach to the functioning aspects of the Indian economy.</li> <li>• Keeping in view the scope for alternative approaches, such an analysis is imperative because of the Indian the economy is a unique amalgam of alternative competing and often conflicting Theories and a proper understanding of its functioning is imperative if the student is to comprehend the ramification that underlines most of the observed phenomena in the Indian economic set-up.</li> </ul>					

**Unit-1: Labour and Employment**

**(20 Hours)**

- 1.1. Demographic changes in India – Census – Population policies – Demographic Dividend
- 1.2. Labour Market – Demand and Supply in labour market – Problems – Child Labour – Labour Market Reforms – Rural Urban Migration – Global Migration and Foreign remittance- Labour Policy and Social Security
- 1.3. Status and causes of Unemployment in India – NSSO Estimates – Employment trends in organized and unorganized sector – Employment Generation Programs in India – MGNREGS

**Unit-2: Poverty and Inequality**

**(20 Hours)**

- 2.1. Poverty in India – definition, head count ratio, poverty gap and squared poverty gap index; Extent and distribution of poverty in India; Estimates of Poverty: Tendulkar and Rangarajan committee.
- 2.2. Rural development – issues and strategies and micro level planning - SHGs and microfinance
- 2.3. Inequality – Regional Imbalances in India – Inclusive growth – concepts and policy initiative

**Unit-3: Fiscal Policies and Reforms in India**

**(25 Hours)**

3.1. Fiscal reforms in India post 1991- Tax reforms and reforms in public expenditure management- Goods and Services Tax - Public Debt and Sustainability issues- Implementation of FRBM Act - Fiscal and Monetary Policy dynamics in India- Centre State Fiscal relationship- cooperative and competitive federalism in India- Role of Finance Commission- Local Bodies in India.

3.2 Black money and parallel economy in India, Consequences and Remedies.

3.3. Demonetization and its macro-economic impact

3.4. Global Economic crisis and its impacts

#### **Unit-4: Financial Sector in India (25 Hours)**

4.1. Financial system – Structure – Social Banking under nationalization – Financial Repression in the Pre-1991 period

4.2. Financial Sector Reforms

4.3. Rural indebtedness – informal credit market – trends

4.4. Financial inclusion - Strategies and progress

4.5. Second Generation Financial Reforms.

#### **Reference:**

Agarwal A N (2017), Indian Economy: Problems of Development and Planning, Vikas Publishing House, New Delhi.

Ahulwaia, J.J. and I.M.D. Little (Eds.) (1999) India's Economic Reforms and Development (Essays in hon/ of Manmohan Singh) Oxford University Press, New Delhi.

Ashima Goyal (2015): A Concise Handbook of the Indian Economy in the 21st Century, OUP.

B A Prakash (ed) (2012) The Indian Economy Since 1991: Economic Reforms and Performance, Pearson, New Delhi

Banik Nilanjan (2015), The Indian economy-A Macro-Economic Perspective, Sage India

Bardhan R.K. (9th Edition) The Political Economy of Development in India, Oxford University Press, New Delhi.

Bhagwati Jagdish and Arvind Panagariya (2012): 'India's Tryst with Destiny'. Collins Business, Noida, India.

Bhalotra Sonia (1998): 'The Puzzle of Jobless Growth in Indian Manufacturing'. Oxford Bulletin of Economics and Statistics, Vol. 60 No 1.

- Byres T.J (1998): 'The Indian Economy: Major Debates since Independence'. Oxford University Press, New Delhi.
- Chakraborty Pinaki (2015): Finance Commission's Recommendations and Restructured Fiscal Space, Economic and Political Weekly, Vol . 50, No. 12, March 2015.
- Chakraborty Pinaki (2016): 'Emerging Issues in Union-State Relations' Economic and Political Weekly, Vol 52, No. 9, March 2017.
- Chakraborty Pinaki (2016): Restructuring of Central Grants: Balancing Fiscal Autonomy and Fiscal Space, Economic and Political Weekly, Vol. 51, No. 6, February 2016.
- Chetan Ghate (2016): The Oxford Handbook of the Indian Economy, OUP.
- Deaton, A. and V. Kozel (ed) (2005): 'The Great Indian Poverty Debate'. New Delhi: Macmillan.
- Dipak Mazumdar, Sandip Sarkar (2008): Globalization, Labour Markets and Inequality in India, International Development Research Centre
- Eswaran Mukesh and Ahsok Kotwal (1994): 'Why Poverty Persists in India'. Oxford University Press, New Delhi.
- Gopalji and Suman Bhakri (2013), Indian Economy, Performance and Policies, Pearson, New Delhi.
- Government of India, Census of India (2011); Paper I, Paper II and Paper III.
- Government of India, Economic Survey (Annual Issues), Ministry of Finance, New Delhi.
- Himanshu (2011). "Employment Trends in India: A Re-examination." Economic and Political Weekly, Vol.46, No. 37, pp 497-508.
- Himanshu. (2007). "Recent Trends in Poverty and Inequality: Some Preliminary Results." Economic and Political Weekly, Vol.42, No. 6,pp 497-508.
- India 2019, Publication Division, New Delhi.
- Jayaraj D, Subramanian S (2010): Poverty, Inequality and Population- Oxford University Press, New Delhi.
- Jean Dereze and Amartya Sen (1996): 'An Uncertain Glory: India and its Contradictions'. Penguin Books Ltd. London.
- Jyotsna Jalan, Sugata Marjit (2016): India Public Finance and Policy Report 2016: Fiscal Issues and Macro Economy, OUP.
- Kannan, K P and G Raveendran (2009), "Growth sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing", Economic and Political Weekly, Vol. 44, No. 10, pp. 80-91.

- Kannan, K P and G Raveendran (2012), “Counting and Profiling the Missing Labour Force”, Economic and Political Weekly, Vol. 47, No. 06, pp. 77-80.
- Kaushik Basu and Annemie Maertens (Editors) 2010, The Concise Oxford Companion to Economics in India, OUP India
- Kohil Atul (2012): Poverty Amid Plenty in the New India. Cambridge University Press, New Delhi.
- Mahendra Dev S. (2016): Economic Reforms, Poverty and Inequality. IGIDR Working paper, 2016-09.
- Mahendra Dev S. (ed) (2007): ‘Inclusive Growth in India’. Oxford University Press, New Delhi.
- Mahesh C. Purohit & Vishnu Kanta Purohit (2014): The Oxford Handbook of Tax System in India: An Analysis of Tax Policy and Governance.
- Martin Ravallion (2016): The Economics of Poverty: History, Measurement, and Policy, OUP.
- Mehrotra, S., Parida, J., Sinha, S., and Gandhi A., (2014), “Explaining Employment Trends in the Indian Economy: 1993-94 to 2011-12”, Economic & Political Weekly, Vol. 49, No. 32, pp. 49-57.
- Mehrotra, Santosh and Jajati Parida (2017), “Why is the Labour Force Participation of Women Declining in India?”, World Development, Vol. 98, pp. 360–380.
- Nayak, Pulin, Economic Development of India (Critical Concepts in Economics), London & New York, Routledge, 2015
- Nicholas C. Hope, Anjini Kochhar, Roger Noll and T. N. Srinivasan (2013): Economic Reform in India: Challenges, Prospects, and Lessons, Cambridge University Press.
- Nilanjan Banik (2015): The Indian Economy: A Macroeconomic Perspective. Sage India.
- P.S. Krishnan (2018): Social Exclusion and Justice in India, Routledge.
- Radhakrishna R.(2015): Well-being, Inequality, Poverty and Pathways Out of Poverty in India. Economic and Political Weekly, October 10.
- Raghubendra Jha (2018): Facets of India’s Economy and Her Society Volume II: Current State and Future Prospects, Palgrave.
- Ratan Khasnabis • Indrani Chakraborty (2014): Market, Regulations and Finance: Global Meltdown and the Indian Economy, Springer.
- Reddy, Rammohar C (2017) Demonetization and Black Money, Orient Black swan, New Delhi.
- Ruddar Dutt and Sundaram (2018): Indian Economy, S Chand and Company, New Delhi

Shankar Acharya (2005): ‘Thirty years of Tax Reforms in India’ Economic and Political Weekly May 14, 2005.

T. J. Byres (ed): The State, Development Planning and Liberalisation in India, OUP.

Thomas Piketty and Nancy Qian (2009): ‘Income Inequality and Progressive Income Taxation in China and India, 1986–2015’. American Economic Journal: Applied Economics, Vol. 1, No. 2, pp. 53-63.

Uma Kapila (2018): Indian Economy: Performance and Policies, 2018-19.

Uma Kapila (2019): Indian Economy Since Independence: A comprehensive and critical analysis of India's economy, 1947-2017 (Academic Foundation)

Vinod B. Annigeri • R. S. Deshpande Ravindra Dholakia (2018): Issues in Indian Public Policies, Springer

Y.V. Reddy and G.R. Reddy (2019): Indian Fiscal Federalism, OUP (India)

Y.V. Reddy, Partha Ray & Narayan Valluri (2014): Financial and Fiscal Policies Crises and New Realities.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	To comprehend the ramification that underlines most of the observed phenomena in the Indian economic set-up	K 4	2 & 3
2	Understand the functioning aspects of the Indian economy	K 5	1 & 2

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions



Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>II</b>	PG20EC209	<b>Kerala Economy</b>	<b>Core</b>	<b>3</b>	<b>90</b>

Course Objectives

- The basic objective of the course is to introduce students to the current and critical issues, challenges and problems of the Kerala economy and thereby enhance their analytical ability to understand the dynamics of a regional economy.
- The aim of the course is to teach the students about Kerala's development experiences in historical perspective.
- It will enable them to understand the current economic scenario and their routes in historical and global perspective.
- The contents of the course are structured to make students aware of burning issues in agriculture, industrial and social sectors of Kerala economy.
- Keeping in view the scope for alternative approaches, such an analysis is essential because the Kerala economy is a unique amalgam of alternative competing and often conflicting theories and a proper understanding of its working is a sine qua non-if the student is to comprehend the ramification that underlines most of the observed phenomena in the Kerala economic set-up.

**Unit- 1: Introduction to Kerala Economy**

**(20 Hours)**

- 1.1.Kerala economy at the time of state formation- Broad Features – Sectoral Contribution.
- 1.2.Growth and Development since 1956- Trends and Pattern of GSDP
- 1.3.Trend, Pattern and Sectoral Contribution—Re-distributive policies (Health, Education,PDS, Land reforms)

**Unit- 2: Agriculture and Allied Sectors**

**(15 Hours)**

- 2.1.Agriculture Growth and Performance-Trends in production and productivity
- 2.2.Land Reforms and Land use pattern
- 2.3.Changes in Cropping Pattern
- 2.4.Agricultural Wages
- 2.5.Collective farming Initiatives—green army

- 2.6.Crop Insurance Schemes
- 2.7.Special Agricultural Zone
- 2.8.Finance to Agriculture
- 2.9.Livestock-Fisheries-Water Resources and-Forestry
- 2.10.Agricultural Crisis - Food Security

**Unit- 3: Industrial Sector and Business (15 Hours)**

- 3.1.Industry-Growth and Performance-Industrial Backwardness
- 3.2.Mining, Manufacturing and Construction Sector- Issues and Challenges
- 3.3.Central Sector Investment
- 3.4.State Public Sector Undertakings
- 3.5.Industrial Financing
- 3.6.MSMEs—Traditional Industries—Electronic industry- Electronic Parks

**Unit- 4: Service Sector (25 Hours)**

- 4.1.Growth and performance of Service Sector-Income Generation and Employment Issues
- 4.2.Performance of service Sub-Sectors- Economic Infrastructure—Transport—Energy-- Communication
- 4.3.Social Infrastructure- Health and Education – Tendencies of Exclusion
- 4.4.Kerala Disability Census 2015—Economic and Community Services
- 4.5.Demographic Profile of the State—Demographic Transition in Kerala—Sex Ratio— Nutrition, Morbidity and Ageing.
- 4.6.Trends, Pattern and Problems of Migration—Rehabilitation Issues of Return Migrants
- 4.7.In Migration-- Interstate Migration—Issues of Marginalisation

**Unit-5: Local Governments, Decentralised development and Environmental Issues (15 Hours)**

- 5.1. Kerala's development experience: From lopsided to virtuous phase of development- Sustainability Issues
- 5.2. Role of remittances - Regional Imbalances
- 5.3. Gender Equality- Unemployment, Poverty and Inequality-Social Security-Human Development
- 5.4. Decentralised Planning-Financing of Local Government Plans

5.5. State Finance Commissions

5.6. Performance of Local Government-Scheduled Caste Sub Plan, Tribal Sub Plan and Women Component Plan under Decentralization

5.7. Rural Development Programs- Kudumbasree and SHG

5.8. Development and Utilisation of Natural Resource-Issues of Reclamation

5.5. Tourism and Environmental impact—Waste management-Policies and programs-Impact of Flood 2018 and Rebuilding initiatives.

### Select Readings:

Ajith Kumar and KK George, "Kerala's Education System: From Inclusion to Exclusion?", Economic and Political Weekly, Vol. 44, No. 41/42 (OCTOBER 10-23, 2009), pp. 55-61

BA Prakash and Jerry Alwin (Edited), Kerala's Economic Development: Emerging Issues and Challenges, Sage Publications

Brigit Joseph and K.J. Joseph (2005): Commercial Agriculture in Kerala after the WTO, South Asia Economic Journal, 2005.

C.U. Thresia (2014): Social Inequities and Exclusions in Kerala's: Egalitarian Development, Monthly Review, 2014.

Centre for Development Studies, Poverty, Unemployment and Development Policy : A Case Study of Selected Issues with reference to Kerala, Orient Longman, Bombay.

CT. Kurien, "Kerala's Development Experience: Random Comments about the past and Some Considerations for the Future", Social Scientist, Vol. 23, No. 1/3 (Jan. - Mar., 1995), Economic Review, Kerala State Planning Board, Thiruvananthapuram (Various Issues)  
Economic Reviews- State Planning Board-Variou Issues

Frank RW and BH Chasin: Kerala Development through Radical Reform, Promilla and Co., George K.K: Limits to Kerala Model of Development, CDS, Thiruvananthapuram.

Govindan Parayil (2000): Kerala: The Development Experience: Reflections on Sustainability and Replicability, Zed Books.

Harilal, K. N., Eswaran, K. K (2017): Agrarian Question and Democratic Decentralization in Kerala, Agrarian South: Journal of Political Economy, June, 2017.

Hiroshi Sato (2004): Social Security and Well-Being in A Low-Income Economy: An Appraisal of The Kerala Experience, The Developing Economies, 2004 Vol. 42; Iss. 2  
Human Development Report, Kerala State Planning Board, Thiruvananthapuram

Joseph Tharamangalam (1998): The Kerala Model of Development: A Debate ( Part I), Bulletin of Concerned Asian Scholar, Vol.30.No.3,1998.

Joseph Tharamangalam, Kerala: The Paradoxes of Public Action and Development, Orient Longman, New Delhi.

K K George and Parvathy Sunaina (2005): Dynamics of Change in Kerala's Education System: The Socio-Economic and Political Dimensions, WP-12, Centre for Socio-Economic and Environmental Studies, Kochi.

K P, Kannan and Pillai N., Vijayamohan, "Evolution of Social Security in the Lap of Public Action: Recounting the Experience of Kerala", MRPA 2007, <https://mpra.ub.uni-muenchen.de/9691/>. K. Subramanian and K. J. Joseph, "Electronics in Kerala's Industrialization", Economic and Political Weekly, Vol. 23, No. 24 (Jun. 11, 1988), pp. 1233-1240

K. K. Subramanian and P. Mohanan Pillai, "Kerala's Industrial Backwardness: Exploration of Alternative Hypotheses", Economic and Political Weekly, Vol. 21, No. 14 (Apr. 5, 1986)

K. K. Subramanian, "Development Paradox in Kerala: Analysis of Industrial Stagnation", Economic and Political Weekly, Vol. 25, No. 37 (Sep. 15, 1990)

K. K. Subramanian, "Economic Growth in the Regime of Reforms: Kerala's Experience", Economic and Political Weekly, Vol. 41, No. 10 (Mar. 11-17, 2006),

K. K. Subramanian, "Economic Growth in the Regime of Reforms: Kerala's Experience", Economic and Political Weekly, Vol. 41, No. 10 (Mar. 11-17, 2006), pp. 885-890

K. N. Harilal and K. J. Joseph, "Stagnation and Revival of Kerala Economy: An Open Economy Perspective", Economic and Political Weekly, Vol. 38, No. 23 (Jun. 7-13, 2003),

K. P. Kannan, "Kerala Economy at the Crossroads?", Economic and Political Weekly, Vol. 25, No. 35/36 (Sep. 1-8, 1990)

K. P. Kannan, "Kerala's Turnaround in Growth: Role of Social Development, Remittances and Reform", Economic and Political Weekly, Vol. 40, No. 6 (Feb. 5-11, 2005),

K. P. Kannan, "Political Economy of Labour and Development in Kerala" Economic and Political Weekly, Vol. 33, No. 52 (Dec. 26, 1998 - Jan. 1, 1999), pp. L61-L70

K. R. G. Nair, "Kerala's Development Experience", Economic and Political Weekly, Vol. 40, No. 30 (Jul. 23-29, 2005), pp. 3289-3291

K. Ravi Raman (2010): Development, Democracy and the State: Critiquing the Kerala Model of Development, Routledge.

K. T. Rammohan, "Assessing Reassessment of Kerala Model", Economic and Political Weekly, Vol. 35, No. 15 (Apr. 8-14, 2000), pp. 1234-1236

K.C. Zachariah, E.T. Mathew, S. Irudaya Rajan (2001): Impact of Migration on Kerala's Economy and Society, International Migration 2001 Vol. 39; ISSN. 1

K.C. Zachariah, P.R. Gopinathan Nair and S. Irudaya Rajan (2006): Return Emigrants in Kerala: Welfare, Rehabilitation and Development. Manohar Publishers & Distributors.

K.V. Joseph: Migration and Economic Development of Kerala, Mittal Publications.

Kakkadan Nandanath Raj and Michael Tharakan (1981): Agrarian reform in Kerala and its impact on the rural economy: a preliminary assessment, Issue. ILO.

- Kannan, K.P (1999): Rural labour relations and development Dilemmas in Kerala: Reflections on the Dilemmas of a socially transforming labour force in a slowly growing economy, Volume: 26 Journal: Journal of Peasant Studies
- Kerala Development Report by India. Planning Commission.
- KP Kannan, "Agricultural Development in an Emerging Non-Agrarian Regional Economy: Kerala's Challenges", Economic and Political Weekly, Vol. 46, No. 9, (2011)
- M. H. Suryanarayana (2001): Economic reform versus food security: Kerala's Gordian knot, Journal of International Development 2001 Vol. 13; ISSN. 2
- M. K. Ramachandran (2009): Economics of Agro-based Industries: A Study of Kerala, Mittal Publications.
- M. M. Thampy, "Wage-Cost and Kerala's Industrial Stagnation: Study of Organized Small-Scale Sector", Economic and Political Weekly, Vol. 25, No. 37 (Sep. 15, 1990)
- M. Parameswaran: Financial Crisis and Kerala Economy, Issue 441 of Working paper (Centre for Development Studies (Trivandrum, India)
- M. Suresh Babu, "Kerala's Growth Trajectory", Economic and Political Weekly, Vol. 40, No. 30 (Jul. 23-29, 2005), pp. 3291-3292
- M. Williams (2008): The Roots of Participatory Democracy: Democratic Communists in South Africa and Kerala, Routledge.
- Munster, D (2012): Farmers' suicides and the state in India: Conceptual and ethnographic notes from Wayanad, Kerala, Volume: 46 , Journal: Contributions to Indian Sociology , February, 20
- N Vijayamohan Pillai, "Doubling Kerala's NSDP In 3 Years :Implications for Investment and its Financing", MRPA 2008, <https://mpr.ub.uni-muenchen.de/8876/>
- N Vijayamohan Pillai, Power Sector Reform: Some Lessons for Kerala, MRPA, 2008, <https://mpr.ub.uni-muenchen.de/12334/>
- Nielsen, Kenneth Bo (2016): Political economy of development in India: Indigeneity in transition in the state of Kerala, Forum for Development Studies, August, 2016
- Oommen MA: Rethinking Development: Kerala's Development Experience, Vol-1 & 2 Concept, New Delhi.
- P. D. Jeromi, "What Ails Kerala's Economy: A Sectoral Exploration", Economic and Political Weekly, Vol. 38, No. 16 (Apr. 19-25, 2003), pp. 1584-1600
- P. K. Michael Tharakan and Vikas Rawal, "Decentralization and the People's Campaign in Kerala", Social Scientist, Vol. 29, No. 9/10 (Sep. - Oct., 2001)

- P. Mohanan Pillai and N. Shanta, "Kerala's Turnaround in Growth", *Economic and Political Weekly*, Vol. 40, No. 41 (Oct. 8-14, 2005), pp. 4481-4483
- P. Mohanan Pillai, "Whither State Sector Enterprises in Kerala?", *Economic and Political Weekly*, Vol. 25, No. 7/8 (Feb. 17-24, 1990)
- P. N. Mari Bhat and S. Irudaya Rajan, "Demographic Transition in Kerala Revisited", *Economic and Political Weekly*, Vol. 25, No. 35/36 (Sep. 1-8, 1990)
- P. S. George, "Dilemma of Cost of Cultivation in Kerala", *Economic and Political Weekly*, Vol. 23, No. 39 (Sep. 24, 1988)
- P.T. Thomas: *Fiscal Decentralization and Economic Development: The Kerala Experience*
- P.V. Rajeev: *Socio-economic Change and Regional Development*, Deep & Deep Publns.
- Patrick Heller (1996): *Social capital as a product of class mobilization and state intervention: industrial workers in Kerala, India*, *World Development*, Vol 24,1996.
- Patrick Heller (1999): *The Labour of Development: Workers and the Transformation of Capitalism in Kerala, India*, Cornell University Press.
- Prerna Singh (2010): *We-ness and Welfare: A Longitudinal Analysis of Social Development in Kerala, India*, *World Development*, Vol 39, 2010.
- R.K. Sureshkumar and P. Sureshkumar: *Governance and Development: Lessons and Experience of Kerala*, Achutha Menon Foundation, APH Publishing Co.
- Raman Pillai KK: *Land Reforms in Kerala*, APH, New Delhi
- Richard Sandbrook, Marc Edelman, Patrick Heller, Judith Teichman (2007): *Social Democracy in the Global Periphery: Origins, Challenges, Prospects*, Cambridge.
- Robin Jeffrey, "Politics, Women and Well Being: How Kerala Became A Model", Cambridge University Press
- Silvia Masiero (2014): *Redesigning the Indian Food Security System through E-Governance: The Case of Kerala*, *World Development*, pp.126-137.
- Swapna Mukhopadhyay: *The Enigma of the Kerala Woman: A Failed Promise of Literacy*, Social Science Press, New Delhi.
- T N Krishnan, "Wages, Employment and Output in Interrelated Labour Markets in an Agrarian Economy: A Study of Kerala", *Economic and Political Weekly*, Vol. 26, No. 26 (June 29, 1991), pp. A82-A96
- Thomas Isaac T. M. and Michael Tharakan P. K., "Kerala: The Emerging Perspectives: Overview of the International Congress on Kerala Studies", *Social Scientist*, Vol. 23, No. 1/3 (Jan. - Mar., 1995), pp. 3-36

Thomas Isaac T. M. and Michael Tharakan P. K., "Kerala: Towards a New Agenda", Economic and Political Weekly, Vol. 30, No. 31/32 (Aug. 5-12, 1995), pp. 1993-2004

V. Balakrishnan Nair: Social Development and Demographic Changes in South India: Focus on Kerala, M D Publications.

Varman, R (2008): The Political Economy of Markets and Development: A Case Study of Health Care Consumption in the State of Kerala, India, Volume: 34 Journal: Critical Sociology January, 2008

Yadu, C. R (2016): The Land Question and the Mobility of the Marginalized: A Study of Land Inequality in Kerala, Agrarian South: Journal of Political Economy, May, 2016

Zachariah K.C and S Irudaya Rajan, Kerala's Demographic Transition: Determinants and Consequences, Sage, New Delhi.

Zachariah K.C and S Irudaya Rajan: Migration and Development: The Kerala Experience, Danish Books, New Delhi.

Zachariah KC, Mathew E T and S Irudaya Rajan: Dynamics of Migration in Kerala, Orient Black Swan Books, New Delhi

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand Kerala's development experiences and the current economic scenario and their routes in historical and global perspective	K 2	1
2	Analyse the current and critical issues, challenges and problems in agriculture, industrial and social sectors of Kerala economy and thereby enhance their analytical ability to understand the dynamics of a regional economy	K 4	5

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>II</b>	<b>PG20EC210</b>	<b>Statistics for Economics</b>	<b>Core</b>	<b>4</b>	<b>90</b>
<b>Course Objectives</b>					
<ul style="list-style-type: none"> <li>• The objective of this course is to train students in the use of the most common statistical tools and techniques encountered in economics for analysis of data with valid logic and inferences.</li> <li>• The course presents the basic statistical tools which are indispensable for better cognizance of almost all fields of Economics, both applied and theoretical.</li> <li>• The cardinal end of the course is to equip the students themselves in a comprehensive manner with the statistical concepts that are required for understanding the advanced and core courses of Economics in a broader way.</li> <li>• By the end of this course, the students are expected to learn a clear understanding of the inferential statistics as well as the interpretation of data.</li> <li>• Students will be trained to (i) develop the notion of probability, followed by probability distributions of discrete and continuous types and of joint distributions.(ii) understand the various sampling techniques and sampling distributions (iii) apply the inferential procedures in Statistics which include estimation of parameters and testing of hypotheses and hence to interpret data. (iv) apply the theoretical concepts on datasets using R programming.</li> </ul>					

**Unit- 1: Probability Theory and Probability distributions (20 Hours)**

- 1.1. Random variables - Discrete and Continuous.
- 1.2. Density function, Distribution function - Definition and properties.
- 1.3. Mathematical Expectation, Variance and co-variance of random variables.
- 1.4. Bivariate random variables - Marginal and conditional distributions.
- 1.5. Moment Generating function - Definition and properties.
- 1.6. Discrete distributions - Binomial - Mean, variance, mgf of Binomial distribution (Derivation not required). Computation of probability using Binomial distribution. Fitting of Binomial distribution.
- 1.7. Poisson distribution - mean, variance, mgf of Poisson distribution (Derivation not required). Computation of probability using Poisson distribution, Fitting of Poisson distribution.
- 1.8. Continuous distributions - Normal distribution - Mean, variance and mgf of Normal distribution (Derivation is not required). Standard Normal distribution - pdf, Z-Score, tables of standard normal distribution, Computation of probabilities of Normal distribution. Log- normal distribution - pdf, relation between normal and log-normal distribution.
- 1.9. Law of large numbers and Central Limit theorem (Concept and statement only)



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**Unit- 2: Sampling methods and Sampling Distributions (20 Hours)**

- 2.1. Population and Sampling - Parameter and Statistic - Definition and examples. Errors in Sampling.
- 2.2. Probability and non-probability sampling methods – Different non-probability sampling methods, Practical methods of drawing random samples(Concepts and Applications without derivations) –Simple Random Sampling(with and without replacement), Stratified sampling, Systematic sampling, Cluster sampling- Determination of Sample sizes in the case of Simple Random Sampling and Stratified Sampling(Formulas only).
- 2.3. Sampling distributions - Standard error.
- 2.4. Chi-square, t, and F distribution - Definition, properties and tables of distribution. Examples of statistics following t, Chi-square and F distributions.

**Unit- 3: Inferential Statistics- Estimation (20 Hours)**

- 3.1. Estimation - Point and interval Estimation - Properties of Good estimators.
- 3.2. Methods of Point Estimation - Maximum Likelihood estimators and estimation using method of moments.
- 3.3. Calculation of MLE of parameters of Binomial, Poisson and Normal distributions.
- 3.4. Interval estimation - Confidence interval - population mean of normal distribution when population variance is known and unknown, large sample intervals for proportion and difference in proportions.

**Unit- 4: Inferential Statistics - Testing of Hypothesis (20 Hours)**

- 4.1. Hypothesis testing - Hypothesis - Simple and composite hypothesis - Null and alternative hypothesis. Rejection and acceptance region - Type I and Type II errors, Significance level and power of a test, p-value of a test.
- 4.2. Large sample tests of population mean of one sample and two samples, proportion of a population of one sample and two samples, Goodness of fit, independence of attributes (two- way classification).
- 4.3. Small sample tests of mean and variance of normal population of one sample and two samples - paired sample and independent sample tests, ratio of variances of two normal populations.
- 4.4. Non-parametric tests - Sign test, Wilcoxon Matched-pairs Test (or Signed Rank Test), run test, Fisher-Irwin Test, Mann-Whitney test and Kruskal- Wallis test.

**Unit- 5: Introduction to R Programming (10 Hours)**

5.1 Introduction R Programming-Basics of R Programming, Introduction to RCommander- Entering data into R using RCommander, Exploratory Analysis using RCommander, Statistical Inference using RCommander.

**Reference:**

1. Gupta, S. C., & Kapoor, V. K. (2000). Fundamentals of Mathematical Statistics (A Modern Approach), S. Chand & Sons, New Delhi.
2. Mc Clave, Benson and Sincich (2012): A First Course in Business Statistics, 8<sup>th</sup> Ed, Prentice Hall.
3. Lind A. Douglas, Marchal G. William and Wathen A. Samuel (2016)- Basic Statistics for Business and Economics, 7<sup>th</sup> Ed, McGraw Hill International Edition.
4. Gerald Keller (2012): Statistics for Management and Economics,9<sup>th</sup> Ed, South-Western.
5. Sheldon M Ross (2016): Introductory Statistics,5<sup>th</sup> Ed, Associate Press.
6. Rohatgi, V. K., & Saleh, A. M. E. (2015). An introduction to probability and statistics. John Wiley & Sons.
7. Crawley, Michael J.(2012): The R book. John Wiley & Sons.
8. Purohit, S.G., Deshmukh, S.R. and Gore, S.D.( 2015): Statistics using R. Alpha Science International.

**Course Outcomes**

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the necessary Statistical methods and tools required for Economic analysis.	K2	1
2	Apply the Statistical methodologies to Economic realm to get better insights of Economic phenomena.	K3	1
3	Explain and evaluate critically the theoretical arguments of Economics using Statistical data analysis methods.	K5	1,2,6

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

**LEARNING PEDAGOGY**

Class room lecture, seminar, power point presentations, online classes, self-study and classes through Learning Management Systems

**ASSESSMENT TOOLS**

Test Paper, Assignments, Seminar

**12. THIRD SEMESTER**

<b>Course Code</b>	<b>Title of the Course</b>	<b>Type of the Course</b>	<b>Hours per week</b>	<b>Credits</b>
PG20EC311	<b>International Trade</b>	Core	<b>05</b>	<b>04</b>
PG20EC312	<b>Econometrics-I</b>	Core	<b>05</b>	<b>04</b>
PG20EC313	<b>Public Economics</b>	Core	<b>05</b>	<b>04</b>
PG20EC314	<b>Heterodox Economics</b>	Core	<b>05</b>	<b>04</b>
PG20EC315	<b>Environment Economics</b>	Core	<b>05</b>	<b>04</b>

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>III</b>	PG20EC311	<b>International Trade</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- This course surveys and studies the various theories of international trade and applies them to the analysis of current trade problems.
- The topics covered include theories explaining trade patterns, the effect of trade on national welfare, the welfare of groups within a country, trade policy, international economic integration and so on.
- The course aims to provide an understanding of the broad principles and theories, which govern the free flow of international trade, with empirical evidence.
- It would also provide an exposure to the theoretical underpinnings and empirical evidence of the major trade policies followed both at national and international level.
- The theoretical knowledge of international trade and policy imparted in the course would help the students to solve real-world problems.
- It will prepare them to become trade policy-makers and key strategists on trade issues.

**Unit- 1: Classical Trade Theory (Self-Study)**

**(15 Hours)**

- 1.1 Comparative advantage Theory
- 1.2 Revealed comparative advantage (Case Study- Estimate India's revealed comparative advantage using Balassa index)

**Unit- 2: Neo- Classical Trade Theory**

**(20 Hours)**

- 2.1. Heckscher-Ohlin theorem
- 2.2. Factor-Price Equalization Theorem – Factor Intensity Reversal
- 2.3. Empirical Verifications of Heckscher-Ohlin Theory
- 2.4. The effect of growth on trade – Immiserating Growth – Rybczynski Theorem
- 2.5. Technical progress and trade – neutral, capital saving, labour saving

**Unit-3: Modern Trade Theory**

**(25 Hours)**

- 3.1. Kravis and Linder Theory of Trade- Technology Gap Theory and Product Life Cycle Theory.
- 3.2. Intra-industry trade- causes, emergence and measurement- imperfect competition and trade
- 3.3. The Neo-Heckscher -Ohlin Models
- 3.4. Neo- Chamberlin models- Neo-Hotelling models- Krugman Model
- 3.5. Oligopolistic models- Brander- Krugman Model- Reciprocal Dumping Model- - Gravity Model- Porter Diamond Model
- 3.6. Empirical work in intra-industry trade-Balassa index- Grubel-Lloyd index, Acquino index- - impact of intra industry trade on developing economies-trade in services.
- 3.7. Introduction to supply chain management (SCM) - impact of SCM on international trade
- 3.8. Trade and economic development- role and significance- Singer- Prebisch Thesis

**Unit-4: Trade Policy**

**(30 Hours)**

- 4.1. Effects of tariff —Metzler Paradox- Optimum Tariff- Effective rate of protection
- 4.2. Quotas and other non-tariff barriers- technical/ quality/ safety standards (regulations)- case study on India's EXIM policy
- 4.3. Economic integration – theory of customs union – partial and general equilibrium analysis –dynamic effects
- 4.4. Integration experiences- European Union, BRICS- NAFTA, PAFTA ASEAN
- 4.5. Multilateral trade negotiations- the GATT rounds - World Trade Organization and fair trade- Trade War.

**Essential Readings:**

- Appleyard D. R and Field A J (2014) -International Economics 8<sup>th</sup> Ed McGraw Hill, New Delhi
- Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan

Krugman P R and Obsfeld M (2009) - International Economics- Theory and Policy, 8<sup>th</sup> Ed, Pearson, Dorling Kindersley (India) Pvt. Ltd, New Delhi  
Salvatore, D (2008) - International Economics, 8<sup>th</sup> Ed, Wiley India, New Delhi  
Soderston, B and Reed G. (1994) - International Economics, 3rd Edition, McMillan Press Ltd. London

### **Supplementary Readings:**

A.J. Smit (2010): The competitive advantage of nations: Is Porter's Diamond Framework a new theory that explains the international competitiveness of countries? Southern African Business Review, Volume 14 Number 1  
Bhagwati, J. N. (1987), International trade: Selected readings, Second Edition, MIT Press, Cambridge, Massachusetts  
Bhagwati and Srinivasan (1983), Lectures on international trade, The MIT Press.  
Carbaugh, R J (2008) - International Economics, (11th Edition) Thomson South Western, New Delhi  
Feenstra Robert C (2004), Advanced International Trade- Theory and Evidence, Princeton University Press, Princeton  
Grimwade Nigel (2001), International Trade, (Second Edition), Routledge, London  
Grubel H G and Lloyd P J (1975), Intra-industry Trade, Macmillan, London.  
Haberler G (1961), A Survey of International Trade Theory, International Finance Section, Department of Economics, Princeton University.  
Handbook of International Business, Oxford University Press  
Kindleberger, C P -International Economics, R.D. Irwin, Homewood  
Michele Fratianni: (2007) The Gravity Equation in International Trade, Indiana University, Kelley School of Business, CIBER, Bloomington, Indiana 47405, USA.  
Prebisch, Raul (1959). 'Commercial Policy in the Underdeveloped Countries, AER 49, no.2. pp. 251- 73.  
Reinert K A (2012), An Introduction to International Economics, Cambridge university Press, New York  
Richard Baldwin and Charles Wyplosz (2004), The Economics of European Integration, McGraw Hill, New York  
Richard E Caver and Harry G Johnson, Readings in International economics

## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the broad principles and theories, which govern the free flow of international trade, with empirical evidence.	K 2	1 & 8
2	Understand the theoretical underpinnings and empirical evidence of the major trade policies followed both at national and international level	K 2	1 & 3
3	Gather Theoretical knowledge of international trade and policy to become trade policy-makers and key strategists on trade issues and to solve real-world problems	K 4	5

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

## LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

## ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>III</b>	PG20EC312	<b>Econometrics—1</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- An Economic model is a family of probability distributions proposed by a researcher that could possibly have generated the data of some economic variables -viewed as random variables. Given the economic data either cross-section or time series or panel, a researcher would like to select a particular probability distribution from the family of distributions to “best match” the data.
- This course helps the students to learn how to estimate a general class of parametric models or semi-parametric models, how to conduct testing and inference, given the data.
- The course also aims to cover (1) identification of model parameters; (2) consistency, asymptotic normality, and semi-parametric efficiency of various estimators; (3) hypothesis testing and model selection.
- It also covers the problems encountered in estimation and inference in the context of the single-equation linear regression model. Empirical applications include estimation and inference of some popular economic models in microeconomics and macroeconomics.
- The true objective of this course is to acquaint students with econometric techniques that are widely used in empirical work in Economics and other related disciplines.
- It is intended to expose students to the art of performing estimation, analyzing and interpretation of the estimated econometric model.
- At the end of the course students should be able to: (i) demonstrate their understanding of the appropriate econometric methods for analyzing data; (ii) interpret computer output for the estimation and testing of econometric relationships; and (iii) interpret and discuss results.

**Unit- 1: Two Variable Regression Model**

**(20 Hours)**

1.1. Definition & Scope of Econometrics-Methodology

1.2. Classical Linear Regression Model-PRF-Linearity-Stochastic Disturbance Term-Significance- SRF



- 1.3. Method of OLS-Derivation of OLS Estimators-Deviation Form, Properties-
- 1.4. Assumptions-Gauss-Markov Theorem-Goodness of the Fit- $R^2$
- 1.5. Estimation and Testing of Hypothesis-Standard Error.

### **Unit- 2: Multiple Regression Model**

**(15 Hours)**

- 2.1. Multiple Regression-Matrix Approach—General k variable Model—Variance Covariance Matrix—OLS Estimators and Gauss-Markov Theorem (Matrix Notation)
- 2.2. Partial Regression Coefficients—Multiple Coefficient of Determination-R Square and Adjusted R Square
- 2.3. Estimation and Testing of Hypothesis-Test of Coefficients and Overall Significance-t-test and F test-P-value—Testing the Equality of Two Regression Coefficients
- 2.4. Restricted Least Squares-Testing Linear Equality Restrictions

### **Unit- 3: Violation of the Assumptions of Classical Model and Extensions**

**(20 Hours)**

- 3.1. Heteroscedasticity: Nature, Consequences, Tests, and Remedial Measures
- 3.2. Auto-correlation: Nature, Consequences, Tests, and Remedial Measures
- 3.3. Multicollinearity: Nature, Consequences, Tests, and Remedial Measures
- 3.4. Model Specification and Errors: Consequences—Underfitting and Overfitting—Measurement Errors
- 3.5. Regression through Origin -Scaling and Units of Measurement
- 3.6. Different Functional Forms of Regression Models and their Applications (Log-linear, Semi- log, Double log, Reciprocal and Log Reciprocal Models)—Choice of Functional Forms

### **Unit- 4: Regression with Qualitative Variables and Simultaneous Equation Models**

**20 Hours)**

- 4.1. Qualitative Explanatory Variables—Dummy Variable Regression—ANOVA and ANCOVA Models—Dummy variable Trap—Interpretation of Regression Results
- 4.2. Models with Qualitative Dependent Variables- LPM, Logit, Probit, and Tobit Models—Interpretation of Regression Results
- 4.3. Simultaneous Equation Models—Simultaneous Equation Bias—Inconsistency of OLS Estimators—Identification Problem—Test of Simultaneity and Exogeneity

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4.4. Problem of Estimation—Single Equation Methods —OLS—ILS– 2SLS and Systems

Methods—2SLS and SURE Model—Lurking Variables

**Unit- 5: Dynamic Econometric Models**

**(15 Hours)**

5.1. Estimation of Distributed Lag Models—Koyck Model and its rationalization—Partial Adjustment and Adaptive Expectations Model—Almon Approach

5.2. Instrumental Variables—Method of Instrumental Variables—Problems—SARG Test and Durbin h Statistic—Causality- The Granger Causality Test and Sims Test

**Essential Readings:**

Gujarati, Damodar & Dawn C Porter (2017): Basic Econometrics,5<sup>th</sup> Ed, McGraw Hill.

Stock James and Watson, Mark (2017): Introduction to Econometrics,3<sup>rd</sup> Ed, Pearson Education (Indian Edition).

J Johnston (1997): Econometric Methods,4<sup>th</sup> Ed, McGraw-Hill Higher Education.

**Complementary Readings:**

Badi H. Baltagi (2011): Econometrics,3<sup>rd</sup> Ed, Springer.

Chandan Mukherjee, Howard White and Marc Wuyts (1998): Econometrics and Data Analysis for Developing Countries, Routledge New York.

Christopher Dougherty (2016): Introduction to Econometrics, Oxford University Press, Indian Edition.

G.S. Maddala and Kajal Lahiri (2012): Introduction to Econometrics, 4<sup>th</sup> Ed, John Wiley & Sons (Indian Edition).

Kmenta, Jan (1976), Elements of Econometrics, 2<sup>nd</sup> Ed, McMillan, New York.

Michael Bailey, Real Econometrics: The Right Tools to Answer Important Questions, Oxford University Press, 2016

Peter Kennedy (2008): A Guide to Econometrics, 6<sup>th</sup> Ed, Wiley-Blackwell.

Ramu Ramanathan (2002): Introductory Econometrics with Applications,3<sup>rd</sup> Ed, Thomson Learning Inc, Singapore.

Robert S. Pindyck and Daniel L. Rubinfeld, Econometric Models and Economic Forecasts,4<sup>th</sup> Ed, McGraw-Hill Publishing Co.

Russell Davidson & James G. MacKinnon (2009): Econometric Theory and Methods, Oxford University Press.

Sankar Kumar Bhaumik (2015): Principles of Econometrics: A Modern Approach Using EViews, Oxford University Press (India)

Studenmund A. H (2017): Using Econometrics: A Practical Guide, 7<sup>th</sup> Ed, Pearson (India).

William H. Greene (2018): Econometric Analysis, 8<sup>th</sup> Pearson Education (India).

Wooldridge, Jeffrey M (2018): Introductory Econometrics: A Modern Approach, Thomson, 7<sup>th</sup> Ed, South Western, USA.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Estimate a general class of parametric models or semi-parametric models and to conduct testing and inference of the given data	K 5	6
2	Understand econometric techniques that are widely used in empirical work in economics and other related disciplines	K 2	6 & 8
3	To perform the art of estimation, analysing and interpretation of the estimated econometric model	K 5	5 & 6
4	Analyse data using their understanding of the appropriate econometric methods; interpret computer output for the estimation and testing of econometric relationships and interpret and discuss results.	K 4	6 & 8

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Appling; K 4-Analyzing; K 5-Evaluating; K 6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>III</b>	PG20EC313	<b>Public Economics</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- Public economics is the study of government policy from the points of view of economic efficiency and equity.
- Public economics explores the economic effects of government tax and expenditure policies, as well as the optimal design of these policies.
- The primary objective is to teach the leading current tools and methods of public finance. The course covers major topics in public finance including externalities, public goods, benefit/cost analysis, fiscal federalism, taxation, and others.
- The course deals with the nature of government intervention and its implications for allocation, distribution, and stabilization. The thought content encompasses a host of topics including public goods, market failures, and externalities.
- The objective of this course is to familiarize students about the rationale for and role of government intervention in economic activities and how the government makes economic decisions.
- The course will also examine the recent developments in both theoretical and empirical literature in the area.
- At the end of this course, students should be able to demonstrate a clear understanding of established concepts and theoretical results on collective choice, optimal income taxation, and the effects of income redistribution on the provision of public goods.
- The course will be useful for students aiming towards careers in the government sector, policy analysis, business, and journalism.

**Unit- 1: Role of State and Macroeconomic Perspective of Public Finance (15 Hours)**

1.1. Role of Government: Issues related to market failure and government intervention- Government failure.

1.2. Changing Role of State: Issues in Public Finance in a Globalizing World with special emphasis on Global Public Goods.

1.3. Macroeconomics of Public Finance: The Interaction between Fiscal and Monetary Policy and Fiscal Stabilization

**Unit- 2: Economic Analysis of Public Goods and externalities (20 Hours)**

- 2.1. Public goods: Pure and Impure Public Goods.
- 2.2. Market failure and Externalities- Types of Externalities, Coase Theorem and Property Rights, Free-Rider Problem
- 2.3. Optimal provision of public goods – Voluntary Exchange Models – Samuelson's contribution.
- 2.4. The Theory of Clubs and Local Public Goods- Tiebout Model
- 2.5. Voting and Public Choice – Reasons for Public Choice- Public Choice under Direct Democracy unanimity rule –Wicksell approach
- 2.6. Majority Rule – Buchanan and Tullock model - Bowen Black model
- 2.7. Preference Revelation Mechanisms - Lindahl equilibrium- Groves–Clarke mechanism

**Unit- 3: Economic Decision Making of Government (20 Hours)**

- 3.1. Normative social choice theory – Arrow's theorem – Majority Voting – The Median Voter Model – Representative Democracy -Downs Model on Demand and Supply of Government Policy- Niskanen Model of Bureaucratic Behavior
- 3.2. Positive Social Choice Theory: The Leviathan Hypothesis – Theory of Rent Seeking – Property Rights Dimension, Rent Seeking and X- Efficiency
- 3.3. Lobbying and Interest Groups.

**Unit- 4: Theories in public economics (25 Hours)**

- 4.1. Incidence of Taxation – Optimal Taxation – Dead Weight Loss – Equity Vs Efficiency- Theories of taxation: Benefit Theory, The Cost Service Theory and Ability to Pay Theory
- 4.2. Impact and Incidence of Taxation, Theories of Shifting- Diffusion Theory, Concentration Theory, Demand and Supply Theory.
- 4.3. Theories of Public Expenditure: Adolf Wagner- Wiseman- Peacock - Colin Clark- Bowen Model, Lindahl Model, Pigou Model and Samuelson Model
- 4.4. Theories of Public debt: Classical – Keynesian – Modern
- 4.5. Burden of Public Debt - Intergenerational Equity –Buchanan Thesis

**Unit- 5: Theory of Multi – level Finance**

**(10Hours)**

5.1 Theory of fiscal federalism: The decentralization Theorem

5.2 Theory of intergovernmental transfers

5.3 Vertical and horizontal fiscal imbalances

**Essential Readings:**

Anthony B. Atkinson and Joseph E. Stiglitz (2015): *Economics of the Public Sector*, 2<sup>nd</sup> Rev. Ed, Princeton University Press.

C.V. Brown and Peter. M. Jackson (2010): *Public Sector Economics*, 5<sup>th</sup> Ed, Wiley-Blackwell  
Harvey Rosen (2012): *Public Finance*. 8<sup>th</sup> Ed, McGraw Hill Education.

Hyman David: *Public Finance* (2015): *A contemporary Application of Theory to Policy*, 5<sup>th</sup> Ed, Thomson Learning.

John Cullis and Philip Jones (2009): *Public Finance and Public Choice: Analytical Perspectives*, 3<sup>rd</sup> Ed, OUP (India)

Patrick A. McNutt (1997): *The Economics of Public Choice: Contemporary Issues in the Political Economy of Governing*, Edward Elgar Publishing Ltd.

**Additional Readings:**

Amaresh Bagchi (2005): *Readings in Public Finance*, OUP(India)

Bailey, Stephen J: *Public Sector Economics* (2001): *Theory and Practice*. Second Edition. Palgrave, New York.

Bharti Pandey (2017): *Fiscal Federalism in India: Challenges and Reforms*, Serials Publications.

Buchanan, J. M (1968): *The Demand and Supply of Public Goods*. Randy McNally, Chicago.

Cornes, Richard and Todd Sandler (1996): *The Theory of Externalities, Public Goods and Club Goods*. Cambridge University Press.

Friedman, A (1986): *Welfare Economics and Social Choice Theory*. Martins Nijhoff, Boston.

Glennester, H. and J. Hills (1998): *The State of Welfare: the Economic and Social Spending*, Oxford University Press, London.

Greene, Joshua E (2012): *Public Finance: An International Perspective*, World Scientific.

Gruber, Jonathan (2016): *Public Finance and Public Policy*, 5<sup>th</sup> Ed, Worth Publishers.

Hindriks, Jean and Gareth D. Myles (2007): *Intermediate Public Economics*. Prentice Hall of India.

Holley H. Ulbrich (2007): *Public Finance in Theory and Practice*, 2<sup>nd</sup> Rev. Ed, South-Western.

Jean-Jacques Laffont (1998): *Fundamentals of Public Economics*, MIT Press

Jha, R (1997): *Modern Public Economics*, Routledge, London.

John Leach (2003): *A Course in Public Economics*, Cambridge University Press.

Kenneth J. Arrow (2012): Social Choice and Individual Values (Cowles Foundation Monographs Series), 3<sup>rd</sup> Ed, Yale University Press

Mueller, Dennis C. (1979): Public Choice, Cambridge University Press.

Musgrave, R.A. and P.B. Musgrave (2017): Public Finance in Theory and Practice, Fifth Edition, McGraw Hill Education.

Stiglitz, Joseph E and Rosengard, Jay K (2015): Economics of the Public Sector, 5<sup>th</sup> Ed, W.W. Norton and Co, Inc

## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the established concepts and theoretical results on collective choice, optimal income taxation, and the effects of income redistribution on the provision of public goods	K 2	2
2	Pursue careers in the government sector, policy analysis, business, and journalism	K 3	3
3	Examine the recent developments in both theoretical and empirical literature in the area	K 4	5
4	To familiarize with the rationale for and role of government intervention in economic activities and how the government makes economic decisions	K 2	1

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

## LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

## ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>III</b>	PG20EC314	<b>Heterodox Economics</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- Over the past two decades, the intellectual agendas of heterodox economists have taken a decidedly pluralist turn. Leading thinkers have begun to move beyond the established paradigms of Austrian, feminist, Institutional-evolutionary, Marxian, Post-Keynesian, radical, social, and Sraffian economics – opening up new lines of analysis, criticism, and dialogue among dissenting schools of thought. This cross-fertilization of ideas is creating a new generation of scholarship in which novel combinations of heterodox ideas are being brought to bear on important contemporary and historical problems.
- A better understanding of heterodox principles will lead to a more informed understanding of mainstream economics.
- Heterodox economics is defined as a collection of separate schools of thought or traditions such as Marxism, institutionalism, post-Keynesianism, evolutionary economics, feminist and green economics, and more.
- The aim of this course is to revisit a set of economic concepts that are being extensively used in the economics curriculum--but with a critical stance that concentrates on philosophical and methodological considerations.
- This course will survey contemporary heterodox approaches to economic research, both from a microeconomic and a macroeconomic perspective.

**Unit- 1: Introduction to Heterodox Approaches**

**(10 Hours)**

- 1.1.Heterodox Economics and Orthodox Economics—Paradigm Blindness
- 1.2.Nature, Characteristic and Features of Heterodox Economics
- 1.3.Epistemology/Ontology, Rationality, Method, Economic Core and Political Core

**Unit- 2: Heterodox View of the Economy**

**(20 Hours)**

- 2.1. Classical political economy
- 2.2. Neoclassical economics and heterodox economics
- 2.3. Social provisioning process—Classical social surplus approach—Neoclassical social



surplus approach

2.4. Cambridge controversies in the theory of capital, Inequality, welfare, and economic performance—Kalecki–Keynes–Sraffa synthesis

2.5. Accumulation regimes—Accumulation before the notion of accumulation regime and the contemporary theoretical approaches—Evolution and diversity of accumulation regimes

### **Unit- 3: Value, Production and Distribution**

**(20 Hours)**

3.1. Monetary theories of production

3.2. Capitalism as a monetary circuit other monetary theory of production

3.3. Recent theoretical developments—James Tobin’s stock-flow consistent approach to Macroeconomics (SFCA)—Financialization and other open issues

3.4. The principle of effective demand—Marx, Kalecki, and Keynes

3.5. Long run principle of effective demand

3.6. Heterodox theories of value—Adam Smith, Ricardo, Marx and Sraffa

### **Unit- 4: Micro–Macro link in Heterodox Economics**

**(15 Hours)**

4.1. Theories of prices and alternative economic paradigms

4.2. Pre-analytical visions of the economy and the role of prices—Open issues in the objective approach—Recent Developments

4.3. Heterodox theories of distribution—Classical, Marxian and Sraffian, Cambridge theory and the Neo-Kaleckian theory

4.4. The functional-size distribution nexus

4.5. Micro–Macro link in heterodox economics—Aggregates and aggregation—Problem of compositional Fallacy—Systemism as a general framework

### **Unit- 4: Institutions, Money, Trade and Economic Growth**

**(25 Hours)**

5.1. Society and its institutions—Government and the state—Money and the household

5.2. Business competition and market governance—Austrian, Marxist View and Post Keynesian View

5.3 Money and monetary regimes myth of barter

5.4. Modern money Monetary sovereignty—Counterfeiting—Hierarchy of money—Modern monetary regimes

5.5. Financialization and the crises of capitalism—Development of financialization—  
Financialization as a new stage of capitalism

5.6. Heterodox reconstruction of trade theory

5.7. Post Keynesian-institutionalist theory of trade—Business cycles: Marxian and Keynesian  
approaches

5.8. Economic growth from Harrod-Domar to Kaleckian models—Growth in the South—  
Marxian approaches—Growth Critique

### Select Readings:

David Colander, Richard P.F. Holt and J. Barkley Rosser Jr., “Live and Dead Issues in the  
Methodology of Economics”, *Journal of Post Keynesian Economics*, Vol. 30, No.  
2 (Winter, 2007-2008), pp. 303-312.

David Dequech, “Neoclassical, Mainstream, Orthodox, and Heterodox Economics”,  
*Journal of Post Keynesian Economics* 30(2):279-302.

Frederic Lee, “A History of Heterodox Economics Challenging the Mainstream in the  
Twentieth Century”, Routledge, New York.

Frederic S. Lee (2018): *Microeconomic Theory: A Heterodox Approach*, Routledge.

G. Meijer, W.J.M. Heijman, J.A.C. van Ophem and B.H.J. Versteegen (2006) (Ed): *Heterodox  
views on economics and the economy of the global society*, Wageningen Academic  
Publishers.

Hendrik Van den Berg (2015) : *International Economics: A Heterodox Approach*, Routledge.

John T. Harvey, Robert F. Garnett, “Future Directions for Heterodox Economics”, University  
of Michigan Press.

Jonathan P. Goldstein and Michael G. Hillard (2009): *Heterodox Macroeconomics: Keynes,  
Marx and globalization*, Routledge.

Marc Lavoie, “Post-Keynesian Economics: New Foundations”, Edward Elgar.

Marc Lavoie, “Introduction to Post-Keynesian Economics”, Palgrave Macmillan.

Sheila Dow, "Heterodox Economics: A Common Challenge to Mainstream Economics?", in  
Eckhard Hein, Achim Truger, "Money, Distribution and Economic  
Policy: Alternatives to Orthodox Macroeconomics", Edward Elgar Publishing.

Tae-Hee Jo, Lynne Chester, and Carlo D'Ippoliti, “The Routledge Handbook of  
Heterodox Economics: Theorizing, Analysing, and Transforming Capitalism”, Routledge,  
New York.

Tae-Hee Jo and Frederic S. Lee, “Marx, Veblen, and the Foundations of Heterodox Economics”, Routledge, New York.

Tony Lawson, “The Nature of Heterodox Economics”, Cambridge Journal of Economics, Vol. 30, No. 4 (July 2006), pp. 483-505.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Analyse and study the economic principles considered outside of mainstream or orthodox schools of economic thought	K 4	5
2	Survey contemporary heterodox approaches to economic research, both from a microeconomic and a macroeconomic perspective.	K 2	8
3	Develop their own ideas regarding economic incentives and corporate behaviour	K 3	8
4	Understand the heterodox principles which will lead to a more informed understanding of mainstream economics	K 2	2

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussion

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>III</b>	PG20EC315	<b>Environmental Economics</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- This course examines the economics behind environmental issues and problems and policies designed to address them.
- Topics are focused on the valuation of non-market goods, cost benefit analysis, correcting market failures especially in the provision of public goods, the tragedy of the commons, and climate change.
- The economic assessment of environmental impacts and the economics of policies and institutions which have a significant bearing on the environment are also covered in the course.
- This course will provide students with the tools to understand how market inefficiencies might arise in the presence of externalities like pollution and how market solutions can correct market failures.
- The main objective of the course is to illustrate how the study of mainstream economics needs to be reoriented in the light of the following premises: the natural environment is the core of any economy and economic sustainability cannot be attained without environmental sustainability.
- The course is intended to equip students with analytical skills that would enable the evaluation of environmental and economic policy issues.
- It is expected to enable students to understand the economics of the relationship between economic activities and environmental impacts.

**Unit- 1: Basic Environmental issues: Environment and Economy (15 Hours)**

1.1.Environment and Economy- Environmental Economics, Ecological Economics and Resource Economics- Interlinkages between the Economy and the Environment

1.2.Material Balance Approach- criteria of Natural Resource Use-Principles of uncertainty and irreversibility – Inter generational equity- intra generational equity

1.3.Environment-Development Trade-offs: Environmental Cost of Economic Growth- The Environmental Kuznets Curve. Theory of Krutilla-Fisher Equation for Preservation or Development.

1.4. Different Perspectives on Development and Growth: The First and Second Laws of Thermodynamics Pessimist and Optimistic Models Limits to Growth- Beyond the Limits - Simon Julian's thesis of "Ultimate Resource"-The Skeptical Environmentalist.

1.5. Global environment issues – climate change: positive and normative analysis of climate change- Economics of Global Warming and Climate Change: Nordaus' Dice Model.

**Unit- 2: Welfare Economics, Social Sector and Environment (20 Hours)**

2.1. Individual preference regarding environmental protection-Pareto optimality

2.2. Market Failure and Externalities: Non-exclusion and the Commons Tragedy of Commons Non-rivalry and Public Goods -Non-convexities- Asymmetric Information

2.3. Hardin's Thesis, Olson Theory of Collective Action, Externalities and Property Rights: Coase theorem-Pigouvian Solution, Ostrom's Co-operative Solutions to Common Pool Resources (CPR) -Optimal Provision of Public Goods- Pollution Prevention, Control and Abatement – Command, Control and Market Based Instruments -Taxes Vs. Tradable Permits - CPRS

2.4. Land use - Deforestation- urbanization and their impact on environment - Air and water pollution

**Unit- 3: Alternative Approaches and Methods of Environmental Valuation (20 Hours)**

3.1. Revealed Preference Methods : Travel Cost Method-Random Utility Site Choice Model-Problems of Travel Cost Method-Hedonic Pricing Method and the Problems-Hedonic Wage Values-Dose Response Function-Averting Expenditure and Avoided Cost Methods-Challenges-Aggregation and Partial Values

3.2. Stated Preference Methods: Contingent Valuation—Steps in Conducting a Contingent Valuation—Reliability and Validity—Attribute Based Models—Conjoint Analysis—Choice Experiments—Contingent Ranking—Production Function Methods—General Methodology and Measurement Issues

**Unit- 4: Sustainable Development (15 Hours)**

4.1 Sustainable Development – meaning – inter-generational and intra-generational equity – Weak and Strong sustainability rules: Hicksian Sustainability Possible Rules -The Hartwick-Solow Approach - Daly's operational Principles - Safe Minimum Standards Approach -

4.2. Indicators of Sustainability: ENP/AENP (Environmentally Adjusted or Approximate Environmentally Adjusted National Product) and Green GNP Indicator on the Basis of Natural Capital Stock

4.3. Eco Economy and its Shape—Solar Hydrogen Economy—New Materials Economy Feeding Everyone Well—Protecting Forest Products and Services

**Unit- 5: Environmental Governance and Management**

**(20 Hours)**

4.1. Integrated environmental and economic accounting and the measurement-Environmentally corrected GDP

4.2. Ecological Footprint Analysis-Global Environmental Governance- the Montreal and Kyoto Protocol -International Environmental Treaties and Institutions- WTO and TRIPS as related to environmental issues- Subsidies and taxes, Product standards and Exceptions clause; International environmental externalities.

4.3. Environmental regulations and assessment in Indian context.

**Essential Reading:**

Kolstad, Charles D (2014): Environmental Economics, 2<sup>nd</sup> Ed, OUP, Indian Edition.

Nick Hanley, Jason F. Shogren and Ben White (2010): Environmental Economics in Theory and Practice, 2<sup>nd</sup> Ed, Palgrave MacMillan.

Ahmed M. Hussen (2014): Principles of Environmental Economics. 4<sup>th</sup> Ed, Routledge.

Horst Siebert (2010): Economics of the Environment: Theory and Policy, 7<sup>th</sup> Ed, Springer.

**Supplementary Reading:**

Anthony C. Fisher (1981): Resource and Environmental Economics, CUP

Barry C. Field and Martha K. Field (2016): Environmental Economics: An Introduction, 7<sup>th</sup> Ed, McGraw Hill.

Baumol, William J and Wallace E Oates: The theory of environmental policy, CUP 1988.

Charles S. P. (2000): Economics and Global Environment, CUP

David A. Anderson (2010): Environmental Economics and Natural Resource Management, Routledge, London

Hans Wiesmeth (2012): Environmental Economics: Theory and Policy in Equilibrium, Springer.

Henk. F, H. L. Gabel, Shelby G. and Adam Rose, (2001) “Frontiers of Environmental Economics” Edward Elgar, Cheltenham UK

James Crustave Speth and Peter Maas (2009). Global Environmental Governance- Foundation of Contemporary Environmental Studies-Island press.

Jonathan M. Harris and Brian Roach (2018): Environmental and Natural Resource Economics: A Contemporary Approach, 4<sup>th</sup> Ed, Routledge.

- Katar Singh, Anil Shishodia (2007): Environmental Economics; Theory and Applications, Sage publications, New Delhi.
- Kavi Kumar, in Kanchan Chopra and VikramDayal (2009), (Ed). Hand book of Environmental Economics; Oxford University Press.
- Kimio Uno and Peter Bartelmus (1998): Environmental Accounting in Theory and Practice, Springer
- Krutilla John V. (1967). "Conservation Reconsidered", American Economic Review, Vol. 57.
- Lee G. Anderson and Juan Carlos Seijo (2010): Bioeconomic of Fisheries Management, Wiley-Blackwell, Iowa
- Lester R. Brown (2001): Eco Economy: Building an Economy for the Earth, W.W Norton and Company, London
- Lester R. Brown (2015): The Great Transition: Shifting from Fossil Fuels to Solar and Wind Energy, W.W Norton and Company, London
- Mohan Munasinghe and James GustaveSpeth, Sustainable Development in Practice Cambridge University Press.
- Nicholas Stern(2007): The Economics of Climate Change: Stern review, CUP
- Oates W.E. (1994) (ed.), The Economics of the Environment, An Elgar Critical Writings Reader, Edward Elgar.
- Olson, Jr., Mancur (1971), The Logic of Collective action: Public Goods and the theory of Groups, Cambridge, Harvard University Press.
- Ostrom, E. (1990), Governing the Commons: The Evaluation of Institutions for Collective Actions, Cambridge University Press, Cambridge
- Pearce, D.W. and R. Turner (1991): Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.
- Pearce D.W. and Jeremy J. Warford (1996), World without End: Economics, Environment and Sustainable Development, OUP.
- Peter G. Brown and Geoffry Garner (2009), Right Relationship, Building a whole Earth Economy, Berrett-Koehler publishers, Sanfransisco.
- Rabindra N Bhattacharya (2002), Environmental Economics-an Indian perspective, OUP,
- Roger Perman, Yue Ma, James McGilvray and Michael Common: Natural Resource and Environmental Economics, 3<sup>rd</sup> Ed, Pearson Learning.
- Steven C. Hackett (2006): Environmental and Natural Resources Economics: Theory, Policy, and the Sustainable Society, M.E.Sharpe, New York
- Sugatha Margit (2007): India Macroeconomics Annual 2007, Centre for Studies in Social Sciences, Kolkata, Sage Publishers
- Tietenberg, T. (1994): Environmental Economics and Policy, Harper Collins, New York.
- Tony Prato (1998): Natural Resource and Environment Economics, Iowa State University Press
- TrondBjorndal and Gordon Munro (2012): The Economics and Management of World Fisheries, OUP, London

UlaganathanSankar (2004) Environmental Economics OUP, New Delhi.

United Nations (2014): System of Environmental Economic Accounting Central Framework.New York.

### Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	To stress the need to reorient the study of mainstream economics since the natural environment is the core of any economy and economic sustainability cannot be attained without environmental sustainability	K 1	2
2	To understand the economics of the relationship between economic activities and environmental impacts	K 2	1
3	To understand how market inefficiencies might arise in the presence of externalities like pollution and how market solutions can correct market failures.	K 2	2
4	Develop analytical skills that would enable the evaluation of environmental and economic policy issues	K 4	5

**Knowledge Levels:** K 1 - Remembering; K 2 - Understanding; K 3 - Applying; K 4 - Analysing; K 5 - Evaluating; K 6 - Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions



**13. FOURTH SEMESTER**

<b>Course Code</b>	<b>Title of the Course</b>	<b>Type of the Course</b>	<b>Hours per week</b>	<b>Credits</b>
PG20EC416	<b>International Finance</b>	<b>Core</b>	05	04
PG20EC417	<b>Econometrics-II</b>	<b>Core</b>	05	04
PG20EC418	<b>Agricultural Economics</b>	<b>Elective Group-A</b>	05	03
PG20EC419	<b>Industrial Economics</b>	<b>Elective Group-A</b>	05	03
PG20EC420	<b>Labour Economics</b>	<b>Elective Group-A</b>	05	03
PG20EC4P	<b>Project / Dissertation</b>	<b>Core</b>		02
PG20EC4V	<b>Comprehensive Viva -Voce</b>	<b>Core</b>		02

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
IV	PG20EC416	<b>International Finance</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- The course will address the following main topics: the balance of payments; foreign exchange market and exchange rate determination; foreign currency derivative instruments; arbitrage and international parity conditions; risks in global finance, the management of foreign exchange risk with forwards and options; basic characteristics of trade finance and investment instruments; and international capital flows and markets.
- The intent is to investigate how various financial instruments are used for hedging and speculating in the currency markets and how economic theories are applied to determine the equilibrium exchange rates. Some policy issues concerning the recent world financial market turbulence will also be discussed.
- This course aims at providing a theoretical exposition of different aspects of international finance and financial institutions in a historic cum emerging geopolitical context particularly in that of globalization.
- It will equip students with both fundamental knowledge in international finance, financial institutions and their application in real life. This course seeks to provide a working knowledge of these issues.
- It will prepare students to become policy-makers and key strategists on issues related to international finance and related institutions. The stress will be on an understanding of the intuition behind the theories

**Unit-1: Foreign Exchange Rates and Markets**

**(30 Hours)**

1. Foreign exchange market- structure and functions-the demand for and supply of foreign exchange – fixed and flexible exchange rate-nominal, real and effective exchange rates
- 1.2. Types of foreign exchange transactions-arbitrage, spot and forward markets and rates, currency swaps, futures and options-foreign exchange risks, hedging and speculation
- 1.3. Theory of optimum currency area- Euro currency markets and international bond markets - Currency Board determination of exchange rate
- 1.4. Theories of exchange rate- mint parity theory-purchasing power parity theory- Balance of payments Approach- monetary approach-asset market (Portfolio Balance) approach- Exchange rate over shooting- Exchange control-objectives and methods of exchange control.

**Unit-2: Balance of Payments (18 Hours)**

- 2.1. Balance of payments: concepts-structure-disequilibrium in balance of payments
- 2.2. Adjustment Mechanisms-devaluation-elasticity and absorption approaches-Marshall-Lerner condition- J- Curve- Monetary approach to balance of payment adjustment
- 2.3. Foreign Trade Multiplier
- 2.4. Case Study on 1991 BOP Crisis in India

**Unit-3: Open Economy Macro Economic Policy (15 Hours)**

- 3.1. Open Economy Adjustment Policies-Internal and External Balance
- 3.2. Swan Diagram
- 3.3. Assignment Problem
- 3.4. Mundell-Fleming Model-combining monetary and fiscal policies
- 3.5. Implications of Impossible Trinity in the Indian context.

**Unit-4: Resource Movements, Currency Crisis and International Financial Institutions (27 Hours)**

- 4.1. Multi-national organizations (MNCs)
- 4.2. International capital movements-FDI and portfolio investments – Indian experience
- 4.3. Currency Crisis- East Asian Financial Crisis-Sub- prime lending crisis-Greece crisis-Euro zone (debt) crisis
- 4.4. Breton Woods system: International Liquidity and IMF-World bank - international debt problem-external debt of India using international statistics

**Reference:**

- Keith Pilbeam (2013) – International Finance, 4th edition, Palgrave
- Salvatore, D (2008) - International Economics, (8th Edition). Wiley India, New Delhi
- Appleyard D. R and Field A J (2014) -International Economics (8th Edition) McGraw Hill, New Delhi
- Krugman Paul, R and Obstfeld, Maurice and Melitz, Marc.J (2018) - International Finance-Theory and Policy, 11<sup>th</sup> Ed, Pearson (India) Pvt. Ltd, New Delhi

Soderston, B and Reed G. (1994) - International Economics, 3rd Edition, McMillan Press Ltd. London

MacDonald, Ronald (2007): Exchange Rate Economics: Theories and Evidence, Routledge.

Levi Maurice D. (2009): International Finance, 5<sup>th</sup> Ed, Routledge, New York.

### Supplementary Readings:

Bhagwati, Jagdish, Arvind Panagariya, and T.N Srinivasan, (2004): 'The muddles over outsourcing'. Journal of economic perspectives, 18(4): 93-104

Asbjorn Rodseth (2000): Open Economy Macroeconomics, Cambridge University Press.

Carbaugh, R. J (2008): International Economics, (11th Edition). Thomson South Western, New Delhi

Feenstra, Robert C. and Taylor, Alan M (2011): Advanced International Trade- Theory and Evidence, 2<sup>nd</sup> Ed, Worth Publishers.

Fleming, J.M. (1962): Domestic Financial Policies Under Fixed and Floating Exchange Rates, International Monetary Fund Staff Papers 9, pp. 369–379.

Frankel, J.A. (1993): Monetary and Portfolio Balance Models of Exchange Rate Determination, MIT press, Cambridge.

Gerber, James (2014): International Economics, 6<sup>th</sup> Ed, Pearson Education Inc.

Husted, Steven and Melvin, Michael (2016) : International Economics, 9<sup>th</sup> Ed, Pearson.

Kenen Peter B. (2000): The International Economy, Cambridge University Press, New York.

Mundell, R A (1962): The Appropriate Use of Monetary and Fiscal Policy for Internal and External Stability, International Monetary Fund Staff Papers 9, pp. 70 - 79.

Radlett, S, and Sachs J. (1998): The east Asian Financial Crisis: Diagnosis, Remedies, and Prospects', Brookings Papers on Economic Activity. Vol 28, no.1. pp. 1- 74.

Ramsaran Ramesh (1998): An Introduction to International Money and Finance Palgrave

Reinert K A (2012): An Introduction to International Economics, Cambridge university Press, New York:

Pugel, Thomas A (2016): International Economics, 16<sup>th</sup> Ed, McGraw Gill Education.

Stern, R.M. (2007): Balance of Payments: Theory and Economic Policy, Aldine Transaction

Thirlwal, A.P (1999): Balance of Payments Theory, 6th edition, Oxford University Press, New York

Ugur Mehmet (2002): (Edited), An Open Economy Macroeconomics Reader, Routledge, London.

## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	To provide a theoretical exposition of different aspects of international finance and financial institutions in a historic cum emerging geopolitical context particularly in that of globalization	K 4	1
2	To become policy-makers and key strategists on issues related to international finance and related institutions	K 3	3
3	Acquire fundamental knowledge in international finance, financial institutions and their application in real life	K 1	1
4	Know how various financial instruments are used for hedging and speculating in the currency markets and how economic theories are applied to determine the equilibrium exchange rates and the intuition behind the theories	K 3	5

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

## LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

## ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
<b>IV</b>	PG20EC417	<b>Econometrics—II</b>	<b>Core</b>	<b>4</b>	<b>90</b>

Course Objectives

- The aim of the course is to provide the theoretical background that is useful for research in applied economics. Applications of economic theory need a reasonable understanding of economic relationships and relevant statistical methods.
- This course provides an introduction to time series methods in econometrics covering aspects of the trend behaviour, de-trending mechanisms, and their properties, unit root theory, co-integrated system approaches, realised volatility and, model selection. This course accordingly is devoted to equipping the students with advanced theory of econometrics and relevant applications of the methods. It is designed to equip students for analysing real-life data, related to economics in particular and social science in general.
- It will acquaint the students with advanced techniques in time-series and panel-data analysis as well as implementation of theory through software applications to gear them towards execution of independent research projects. The emphasis is on learning to use methods and to developing an understanding of how specific empirical questions determine the empirical approach to be used.
- The aim of this course are threefold: (i) to introduce students to basic modelling techniques in the analysis of cross-section, panel and time series economic data; (ii) to provide students with sufficient econometric training to read the applied literature in core journals which use these standard techniques; (iii) to prepare students for a dissertation topic that analyses either cross-section, panel or time series data using basic econometric techniques.
- At the end of the course, students should be able to perform the following tasks: (i) Interpret the results from regression models involving panel data and instrumental variables; (ii) understand how to use instrumental variables to account for endogenous regressors; (iii) understand how to estimate binary response models; understand how to set up, estimate and analyse panel data regression models; (iv) understand the basic concepts of stationary and non-stationary time series; (v) understand and apply basic linear models for univariate and multivariate time series; (vi) understand the concepts of integration and co-integration and how to test for these phenomena in time series.

**Unit- 1: Stochastic Process and Stationarity**

**(15 Hours)**

1.1. Stochastic Process, Ergodicity and Stationary—White Noise Processes

1.2. Non-Stationarity and Random Walk Models—Deterministic and Stochastic Trends / Trend and Difference Stationary Processes-Integrated Stochastic Process

- 1.3. Non-Stationary Time Series and the problem of Spurious Regression—Solutions
- 1.4. Transforming the Non-Stationary Time Series—Tests of Stationarity — Correlogram (ACF, PACF), and Unit Root Test—Augmented Dicky-Fuller test—Non-parametric PP test—Structural Change

**Unit- 2: ARIMA Modelling and Cointegration**

**(20 Hours)**

- 2.1. The Wold Decomposition Theorem—AR and MA processes—ARMA and ARMAX—ARIMA Modelling
- 2.2. Linear combination of non-stationary series and Cointegration—Difference between Unit Root and Cointegration Tests– Augmented Engle-Granger test and Johansen –Juselius tests— Granger Representation Theorem
- 2.3. Cointegration and Error Correction Mechanism— VECM (Vector Error Correction Model) – Granger Causality

**Unit- 3: Time Series Forecasting and VAR Models**

**(20 Hours)**

- 3.1. Estimation of Auto Regressive Models - Time Series Forecasting— Single Equation and Simultaneous Equation Regression Modelling and the Lucas Critique
- 3.2. Vector Auto regressions (VAR)— Structural VAR (SVAR) and Bayesian VAR (BVAR)— In sample & out of sample (VAR)—Impulse Response Functions— The issues of optimal lag length

**Unit- 4: Volatility Measurement and Growth Rate Estimation**

**(15 Hours)**

- 4.1. Volatility Measurement—Measurement of Volatility ARCH and GARCH Models and Estimation—GARCH Forecasting
- 4.2. Growth Rate Estimation—Robustness—Endogenous and Exogenous Breaks—Kinked Exponential Growth Rates

**Unit- 5: Panel Data Models**

**(20 Hours)**

- 5.1. Panel Data Models—Nature and Data Sources—Constant Coefficients Model— Error Components Models—Fixed Effect (Lest Squares Dummy Variable LSDV) Model—Fixed Effect (Within Groups WG) Estimator—Random Effects Model (REM)—REM and Hausman Test—Breusch-Pagan Test—Consistency Property of Estimators.
- 5.2. Dynamic Panel Data Analysis—Panel Data Unit Root—Cointegration Tests

**Reference:**

- Badi H. Baltagi (2013): *Econometric Analysis of Panel Data*, 5<sup>th</sup> Ed, John Wiley & Sons.
- Cheng Hsiao (2013): *Analysis of Panel Data*, 3<sup>rd</sup> Ed, Cambridge University Press
- Chris Brooks (2014): *Introductory Econometrics for Finance*, 3<sup>rd</sup> Ed, CUP.
- Chris Chatfield (2003): *The Analysis of Time Series: An Introduction*, Chapman & Hall.
- Douglas C Montgomery, Cheryl L. Jennings and Murat Kulahci (2015): *Introduction to Time Series Analysis and Forecasting*, 2<sup>nd</sup> Ed, Wiley.
- Econometric Modelling by Dr. Rudra P. Pradhan, Department of Management, IIT Kharagpur.
- Erik Biorn (2017): *Econometrics of Panel Data: Methods and Applications*, OUP.
- Franses, P. H. (1998), *Time Series Models for Business and Economic Forecasting*, CUP.
- G.S. Maddala and In-Moo Kim (1999): *Unit roots, cointegration, and structural change*, CUP.
- Gebhard Kirchgassner, Jurgen Wolters, Uwe Hassler, *Introduction to Modern Time Series Analysis*, Springer.
- Gujarati Damodar & Dawn C Porter (2017): *Basic Econometrics*, 5<sup>th</sup> Ed, McGraw Hill.
- Gusti Ngurah Agung (2014): *Panel Data Analysis Using EViews*, Wiley.
- H. Stock James and Watson Mark (2017): *Introduction to Econometrics*, 3<sup>rd</sup> Ed, Pearson Education (Indian Edition)
- James D Hamilton (2012): *Time Series Analysis*, Princeton University Press.
- Jeffrey M. Wooldridge (2010): *Econometric Analysis of Cross Section and Panel Data*, 2<sup>nd</sup> Ed, The MIT Press.
- M. Hashem Pesaran (2015): *Time Series and Panel Data Econometrics*, Oxford.
- Marc S. Paoletta (2019): *Linear Models and Time-Series Analysis*, Wiley.
- Orley Ashenfelter, Phillip B. Levine, David J. Zimmerman, *Statistics and Econometrics: Methods and Applications*, John Wiley & Sons.
- Peter J. Brockwell, Richard A. Davis (2010): *Introduction to Time Series and Forecasting*, 2<sup>nd</sup> Ed, Springer.
- Philip Hans Franses, Dick van Dijk and Anne Opschoor (2014): *Time Series Models for Business and Economic Forecasting*, 2<sup>nd</sup> Ed, Cambridge University Press.
- Robert Alan Yaffee, Monnie McGee (2000): *An Introduction to Time Series Analysis and Forecasting: With Applications of SAS and SPSS*, Academic Press.
- Ruey S. Tsay (2010): *Analysis of Financial Time Series*, 3<sup>rd</sup> Ed, Wiley.
- Sankar Kumar Bhaumik (2016): *Principles of Econometrics: A Modern Approach Using EViews*, Oxford University Press (India).
- Spyros Makridakis, Steven C. Wheelwright, Rob J. Hyndman (2008): *Forecasting: Methods and Applications*, 3<sup>rd</sup> Ed, John Wiley & Sons.
- Svetlozar T. Rachev, Stefan Mittnik, Frank J. Fabozzi, Sergio M. Focardi, Teo Jaic, *Financial Econometrics: From Basics to Advanced Modelling Techniques*, John Wiley Sons.
- Terence C. Mills (2015): *Time Series Econometrics: A Concise Introduction*, Palgrave.
- Walter Enders (2018): *Applied Econometric Time Series*, 4<sup>th</sup> Ed, John Wiley & Sons



**Course Outcomes**

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Understand the basic modelling techniques for the analysis of cross-section, panel and time series economic data	K 2	1
2	To understand and apply basic linear models for univariate and multivariate time series and the concepts of integration and co-integration and how to test for these phenomena in time series.	K 2	6
3	To understand how to use instrumental variables to account for endogenous regressors, how to estimate binary response models, to set up, estimate and analyse panel data regression models, the basic concepts of stationary and non-stationary time series	K 2	6
4	Perform the analysis of a dissertation topic using basic econometric techniques	K 6	6 & 8
5	To get sufficient econometric training to read the applied literature in core journals which use these standard techniques	K 3	6 & 8
6	To interpret the results from regression models involving panel data and instrumental variables	K 5	5,6 & 8

Knowledge Levels: K 1-Remembering; K 2-Understanding; K 3-Applying; K 4-Analysing; K 5-Evaluating; K 6-Creating.

**LEARNING PEDAGOGY**

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

**ASSESSMENT TOOLS**

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
IV	PG20EC418	Agricultural Economics	Elective- A	3	90

Course Objectives

- This course is directed toward understanding the performance of the agricultural sector in the process of economic development.
- In this course, the role of the agricultural sector in aggregated (macro) growth and development theories, including the recent endogenous growth theories is reviewed. The course also deals with the production and diffusion of improved agricultural technology, institutions, infrastructure, markets, food security policy and international markets.
- This course is intended to provide an overview of the economics of agriculture. It is designed for providing adequate knowledge about the relevant concepts and principles of Agricultural Economics. The students having awareness in agricultural economics can assess the problems of the farm sector and can make contributions to the prosperity of villages.
- This course can improve the analytical skills of the students. It also tries to address real situations and the concrete problems of agriculture and economic development.

**Unit- 1: Nature and scope of Agricultural Economics**

**(10 Hours)**

- 1.1. Risk and Uncertainty in Agriculture
- 1.2. Instability of Agriculture.
- 1.3. Cropping pattern - factors affecting cropping pattern
- 1.4. Role and Need for Agro-Based Industries
- 1.5 Green Revolution

**Unit- 2: Models of Agricultural Development**

**(20 Hours)**

- 2.1. Schultz's Transformation of Traditional Agriculture
- 2.2. Jorgenson's Model of development of Dual economy
- 2.3. Mellor's Model of Agricultural Development

2.4. Boserup Model of Agricultural Development.

**Unit- 3: Farm Management**

**(40 Hours)**

3.1. Farm management- Principles of farm management–Farm management decisions– principles of factor substitution

3.2. Cost Principles – Opportunity Cost Principle – Principles of Comparative Advantage – Limitations of Farm Management.

3.3. Agricultural Production Functions– Factor–Product Relationships

3.4. Product–Product Relationships, Factor–Factor- Relationships

3.5. Objective functions for family farms and their optimisation-large farms operated by an individual farmer-large farms under tenancy-small owner cultivator-tenant operating a small farm and using only family labour-tenancy and the conflict between the interests of land owner and those of the tenant

3.6. Agricultural Supply Response Models - Cobweb and Nerlove Models.

3.7. Measures of Farm Efficiency.

3.8. Size of the Farm and Productivity

**Unit- 4: Issues Related to Indian Agriculture**

**(20 Hours)**

4.1. Agriculture and Productivity - value addition and agriculture business- Food Security System in India

4.2. Agricultural Finance - Rural Indebtedness

4.3. Agricultural Marketing -Agricultural Price Policy- Price System in India; Challenges of Agricultural Marketing in India-Measures to improve the efficiency of agricultural marketing-role of the state

4.4. Agricultural Price Policy- Need and objectives of agricultural price policy

4.5. WTO and Agreement on Agriculture (AOA)-WTO and India's Agricultural Sector- Review of Recent Debates

**References:**

Acharya, S.S and Aggrawal, N.L 'Agricultural Prices –Analysis and Policy', Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi

- Andrew Barkley and Paul W. Barkley (2013): Principles of Agricultural Economics, Routledge.
- Basu, K. 'Agrarian Structure and Economic Underdevelopment', Harwood Academic, London, 1980
- Bilgrami, SAR. 'An Introduction to Agricultural Economics', Himalaya Pub. House, Mumbai
- David Colman and Trevor Young (1997): Principles of Agricultural Economics: Markets and Prices in Less Developed Countries, Cambridge University Press.
- Johl, S.S. and Kapur, T.R. 'Fundamentals of Farm Business Management', Kalyani Publishers, Ludhiana
- John B Penson, Jr, Oral Capps, C Parr Rosson and Richard Woodward (2015): Introduction to Agricultural Economics, 6<sup>th</sup> Ed, Pearson.
- Joydeb Sasmal (2016): Resources, Technology and Sustainability: An Analytical Perspective on Indian Agriculture, Springer.
- Kohlon, A.S. and Tyagi, D.S. (1983) 'Agricultural Price Policy in India', Allied Pub. New Delhi
- Lekhi, R.K. and Sing Joginder, 'Agricultural Economics', Kalyani Publishers, Ludhiana
- Mellor, J.W. 'The Economics of Agricultural Development' Vora and Co, Mumbai, 1966
- R.N. Sony and Sangeeta Malhotra (2015): Leading issues in Agricultural Economics, 12<sup>th</sup> Ed, Vishal Publishing Co.
- Reddy S. Subha et al. 'Agricultural Economics', Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi
- Rudra Ashok, 'Indian Agricultural Economics: Myth and Realities' Allied Pub. New Delhi, 1982
- Sankhayan, P.L. 'Introduction to Economics of Agricultural Production', Prentice Hall of India Pvt. Limited., New Delhi
- Schultz, T.Z. 'Transforming Traditional Agriculture', Yale University Press, 1964
- Drummond, H. E and Goodwin, J W (2004), Agricultural Economics, Pearson Delhi

## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Have an overview of the economics of agriculture	K2	1
2	Gather adequate knowledge about the relevant concepts and principles of Agricultural Economics	K2	2
3	Develop awareness in agricultural economics to assess the problems of the farm sector and to make contributions to the prosperity of villages	K 1	3
4	Acquire analytical skills to address real situations and the concrete problems of agriculture and economic development.	K 4	5

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Applying; K 4- Analysing; K 5-Evaluating; K 6-Creating.

## LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

## ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
IV	PG20EC419	<b>Industrial Economics</b>	<b>Elective - A</b>	<b>3</b>	<b>90</b>

Course Objectives

- In the globalized era, industrial development is a sine qua-non for rapid economic development. Keeping this in view, the objectives are to provide thorough knowledge about the economics of industry and issues related to market structure, firms' motivations and conducts, productivity, and efficiency in a cogent and analytical manner.
- Its aim is to familiarize students with a broad range of the methods and models applied by economists in the analysis of firms and industries. It also provides a detailed understanding of policy debates involved in industrial development in India.
- By learning this course, the students can obtain a glimpse of the recent developments in this field and enhance their analytical skill.
- This course offers a rich and diverse platform to explore the core of the economic theory, using real-world examples and encouraging unique and innovative problem-solving techniques.
- Upon completion of the course students should: understand basic models of the behaviour of firms and industrial organization and how they can be applied to policy issues; be able to manipulate these models and be able to solve analytically problems relating to industrial economics; be familiar with the history of competition policy and be familiar with the functioning of different experimental market institutions and the key results of these experiments

**Unit- 1: Industrial Economics and Theory of Firm (15 Hours)**

1.1. Meaning and scope of industrial economics.

1.2. Industrial organisation: Different forms of Industrial Organization, Proprietorship, partnership, Joint Stock Companies, Holding Companies, and Industrial Co-Operative Organizations – Corporation – Public Sector Companies: departmental, govt. companies, joint-sector, internal organisation: unitary (U)form and multi-divisional (M)form-Choice of Organizational form.

1.3. Size of the firm: Optimum firm, Representative firm, Equilibrium firm, factors Determining optimum size.

**Unit- 2: Market Structure & Industrial Location (20 Hours)**

2.1. Sellers concentration and its measurement: the concentration ratio, the Lorenz curve, product differentiations – its sources and its implications, entry conditions, economies of scale, market structure & innovation – the process of innovation – concepts & relationships – its measurement.

2.2. Concept of Industrial Location, Determinants of Location, Dynamics of industrial Location – Theories of Industrial Location (Weber’s Theory, August Losch and Sargent Florence’s Theory) – Industrial Location Policy.

2.3. Theories of Industrialisation-Hoffman, Chenery and Gershenkron.

**Unit- 3: Market Conduct**

**(20 Hours)**

3.1. The structural conduct performance approach relationships between structure, conduct & performance, neoclassical developments of the SCP approach.

3.2 Pricing goals: maximisation of profit, sales, rate of return, sales and market shares— Pricing policies: marginal cost and full-cost pricing-Pricing procedures: Penetrating, skimming, price discriminations and transfer pricing. Pricing in practice – cost plus pricing, incremental cost pricing, the target rate of return pricing, acceptance pricing, the going rate pricing, pricing in public enterprises

3.3 Diversification and Vertical Integration, Merger – Definitions, Types & Motives, Implication for Public Policies.

**Unit- 4: Market Performance & Project Appraisal**

**(20 Hours)**

4.1. Industrial productivity – its importance, distinction between production and productivity, factors influencing industrial productivity.

4.2. Industrial efficiency – meaning of the concept, the determinants of economic efficiency, measurement of the efficiency levels- efficiency conditions in the theory of production: constrained output maximisation, constrained cost minimisation, profit and revenue maximisation- efficiency and decision-making process.

4.3. Investment decisions: – profile of the project, methods of project evaluation; - the payback method, the average of accounting rate of return method, the net present value method, the internal rate of return method, ranking of projects; NPV VS IRR. Risk & uncertainties in project appraisal

**Unit- 5: India’s Industrial Growth:**

**(Self-study)**

**(15 Hours)**

5.1. Pattern of industrialization since 1991-Changing structure of industries.

5.2. Evolution of industrial policy - Liberalization of Industrial sector in India- Industrial Policy-1991, Trends in Industrial Growth after NEP - Public sector industries in India- policy on privatization -competition policy.

5.3. Industrial sickness- Exit policy- Role of BIFR – Role of MNC s in India.

5.4. Issues in industrial development in the context of globalization.

5.5. Industrial Finance- Nature and types of Industrial Finance - Sources of Institutional Finance – Specialized institutions – IDBI, IFCI, SFCs, SIDC etc.- Commercial banks - Capital structure in India.

**Essential Reading:**

Divine, P.J. and R.M. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London

Hay, D A and Morris D J (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.

Paul R Ferguson & Glenys J Ferguson, Industrial Economics: Issues and Perspectives 2nd Ed, New York University Press, Washington square, New York 1994.

**Supplementary Reading:**

Ahluvalia, I.J. 'Industrial Growth in India', Oxford University Press, New Delhi

Balakrishnan, P and Pushpangadan, K. 'Total Factor Productivity Growth in Indian Manufacturing-A Fresh Out Look', Working Paper No.259, CDS, Thiruvananthapuram, 1994  
Barathwal, R.R. 'Industrial Economics: An Introductory Text Book', Wiley Eastern Ltd. New Delhi, 2016.

Brahmananda, P.R. and Panchamukhi, V.R. (Eds), 'The Development Process of the Indian Economy', Himalaya Publishing House, Mumbai, 1987

Cherunilam, Francis, 'Industrial Economics: Indian Perspective', (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai, 1994

Deepak Nayyar, Industrial Growth and Stagnation. Oxford University Press, 1994

Deepak Nayyar, Trade and Industrialisation, Oxford University Press, New Delhi, 1977

Desai, B (1999), Industrial economy of India, Himalaya Publishing House, Mumbai.

Isher Judge Alhuwalia, Industrial Growth in India, Oxford University Press, New Delhi, 1985

Kuchhal, S.C. 'Industrial Economy of India', (5<sup>th</sup> Edition), Chaitanya Publishing House, Mishra and Puri (latest edition): Indian economy, Himalaya publisher, Mumbai.

Renjana Seth, Industrial Economics, Ane Books Pvt. Ltd, New Delhi ,2010

Rogor Clarke, 'Industrial Economics', Basil Blackwell, New York

Shy, Oz., Industrial Organization: Theory and Applications, MIT Press, 1995

Singh, A and A.N. Sandhu (1988), Industrial Economics, Himalaya Publishing House, Smith, D.M 'Industrial Location-An Economic and Geographic Analysis', John Wiley, New York, 1971

Stephen Martin, Advanced Industrial Economics, Basic Blackwell, 1993.

Tirole, J., The Theory of Industrial Organization, MIT Press, 1988



## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Gather knowledge about the economics of industry and issues related to market structure, firms' motivations and conducts, productivity, and efficiency in a cogent and analytical manner.	K 1	2
2	Familiarize with a broad range of the methods and models applied by economists in the analysis of firms and industries	K 1	3
3	Understand policy debates involved in industrial development in India and have a glimpse of the recent developments in this field and enhance their analytical skill.	K 2	1
4	Understand basic models of the behaviour of firms and industrial organization and how they can be applied to policy issues; be able to manipulate these models and be able to solve analytically problems relating to industrial economics; be familiar with the history of competition policy and be familiar with the functioning of different experimental market institutions and the key results of these experiments	K 6	8

**Knowledge Levels:** K1-Remembering; K2-Understanding; K3-Applying; K4-Analyzing; K5-Evaluating; K6-Creating.

### LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

### ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

Semester	Course code	Course Title	Type of course	Credit	Teaching Hours
IV	PG20EC420	<b>Labour Economics</b>	<b>Elective – A</b>	<b>3</b>	<b>90</b>

Course Objectives

- Labour economists study the economic forces that determine wages and employment. The major objective of this course is to impart knowledge about the dynamics of labour market. This course emphasizes the power of microeconomic reasoning to answer important economic questions.
- Topics covered include: approaches to labour supply and family coordination of time allocation and commodity demand, incorporating gender and generational bargaining; human capital, job tenure, union status, and discrimination as wage determinants; wage inequality as affected by skill supplies, minimum wages, unions, immigration, and interpretation of compensating variations in wages as evidence on employer demands, job and location amenities. Issues pertaining to the labour market, wage theories, employment policies, trade unions and collective bargaining in the globalized economy have become vitally important for developing countries.
- In a country like India where the bulk of the labour force is in the unorganized sector and the organized sector is witnessing jobless” growth, the importance of issues such as employment and unemployment as well as livelihood and social security for the growing millions continues to assume significance.
- This course exposes students to theoretical as well as empirical issues relating to the labour market.

**Unit- 1: Labour Markets: Supply of Labour**

**(20 Hours)**

1. Theory of Individual Labour Supply: The Work – Leisure Decision: Basic Model - Indifference Curves-- Opportunity Cost of Leisure --Budget Constraint--Utility Maximization
2. Wage Rate Changes: Income and Substitution Effects--Rationale for the Backward-Bending Supply Curve - Wage Elasticity of Labour Supply - Labour Supply of Women -
3. Policy Application: Cash Grants and Labour Supply-The Impact of Welfare on Labour Supply--The Earned Income Tax Credit.

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4. Participation Rates and Hours of Work: Becker's Model: The Allocation of Time--- Commodity Characteristics--Household Choices--Becker Income Effect--Becker Substitution Effect--Participation Rates--Cyclic Changes in Participation Rates--Added-Worker Effect--Discouraged-Worker Effect-- Life Cycle Aspects of Labour Supply -The Choice of Retirement Age--Policy Application: Child Care and Labour Supply

**Unit- 2: Labour Markets: Demand for Labour:**

**(20 Hours)**

2.1 The Production Function--The Employment Decision in the Short Run-- The Short-Run Labour Demand Curve for a Firm and Industry

2.2 The Employment Decision in the Long Run: Iso-quant and Iso-cost Approach: The Long-Run Demand Curve for Labour--Substitution and Scale Effects.

2.3 Labour Demand Elasticity--Elasticity of Substitution---- The Hicks--Marshall Laws of Derived Demand---The Cross-Wage Elasticity of Demand.

2.4 Labour Market Equilibrium: Equilibrium in a Single Competitive Labour Market-- Competitive Equilibrium across Labour Markets. Policy Application: Payroll Taxes and Subsidies -- Deadweight Loss--Employment Subsidies -- Effects of Minimum Wage Laws - The Labour Market Impact of Immigration. The Cobweb Model.

**Unit- 3: Wage Determination and the Allocation of Labour**

**(10 Hours)**

3.1 Theory of A Perfectly Competitive Labour Market-Wage and Employment Determination Monopoly in The Product Market--- Monopsony-Wage Determination within the Firm.

3.2 The Employment Contract--Motivating Workers--Motivating the Individual in a Group-- Productivity and the Basis of Yearly Pay--Productivity and the Level of Pay -Productivity and the Sequencing of Pay.

3.3 Incentive Pay: Piece Rates and Time Rates—Tournament— Economics of Fringe Benefits- -Theory of Optimal Fringe Benefits--- Profit Sharing-Equity Compensation-- Tournament Pay- -Efficiency Wage Payments- Hedonic Wage Theory and Employee Benefits

**Unit- 4: Labour Union and Wage Bargaining**

**(25 Hours)**

4.1. Determinants of Union Membership--The Demand for and Supply of Union Jobs--  
- The Structural Change Hypothesis---Managerial Opposition Hypothesis--The Substitution  
Hypothesis--Monopoly Union Model--Efficient Contracts Model.

4.2. The Bargaining Process--The Activities and Tools of Collective Bargaining—

Bargaining and the Threat of Strikes--Accident Model--Asymmetric Information Models—  
Union Wage Effects--Threat and Spill-over Effects--Unions and Wage Dispersion--Unions  
and Fringe Benefits--Nonwage Effects of Unions.

4.3 The Economic Impact of Unions: The Union Wage Advantage--Spill over Effect--Threat  
Effect-- Other Effects --The Effects of Unions on Employment, Productivity and Profits

4.4 State and social security of labour - Concept of social security and its evolution; Social  
assistance and social insurance; Labour market reforms - Exit policy, need for safety nets,  
measures imparting flexibility in labour markets; National Commission on Labour;  
Globalization and labour markets.

## **Unit- 5 Unemployment**

**(15 Hours)**

5.1 Unemployment Types— A Stock-Flow Model of the Labour Market.

5.2 The Theory of Job Search--Effects of Unemployment Insurance Benefits

5.3 Structural Unemployment--Downward Wage Rigidity and Union, Specific Human Capital,  
Asymmetric Information, Worker Status and Social Norms-- Implicit Contracts---Insider–  
Outsider Theories- Efficiency Wages and Unemployment

### **Reference:**

Campbell R. McConnell, Stanley L. Brue and David A. Macpherson (2017): Contemporary  
Labour Economics, 11th Edition, McGraw-Hill Education, New York.

George J. Borjas (2016): Labour Economics 7th Edition, McGraw-Hill Education, NY  
10121.

J.E. King (2000): Labour Economics.2nd Ed, Macmillan Education.

Pierre Cahuc, Stéphane Carcillo, André Zylberberg (2014): Economics,2nd Ed, MIT Press.

Ronald G. Ehrenberg and Robert S. Smith (2012): Modern Labour Economics: Theory and  
Public Policy, 11th Edition, Prentice Hall.

Stephen Smith (2003): Labour Economics, 2nd Ed, Routledge

## Course Outcomes

CO No.	Upon completion of this course, the students will be able to:	Knowledge Level	PSO No.
1	Gain knowledge about the dynamics of labour market. This course emphasizes the power of microeconomic reasoning to answer important economic questions.	K 1	1
2	Understand the importance of issues such as employment and unemployment as well as livelihood and social security for the growing millions continues to assume significance.	K 2	3
3	Understand the theoretical as well as empirical issues relating to the labour market.	K 2	3
4	Understand issues pertaining to the labour market, wage theories, employment policies, trade unions and collective bargaining in the globalized economy which are vitally important for developing countries.	K 2	8

**Knowledge Levels:** K 1-Remembering; K 2-Understanding; K 3-Applying; K 4-Analysing; K 5-Evaluating; K 6-Creating.

## LEARNING PEDAGOGY

Class room lecture, seminar, power point presentations, online classes, self-study and classes through social media

## ASSESSMENT TOOLS

Both Formative and Summative Assessments; Test Paper, Assignments, debates, Terminal examinations, Case Studies, Content Analysis, Observations, Interviews and Group Discussions

14.

**MODEL QUESTION PAPERS**

**MAR ATHANASIOUS COLEGE (AUTONOMOUS), KOTHAMANGALAM**

**M. A. DEGREE (CSS) EXAMINATION**

**MICRO ECONOMICS - I**

**Time: 3 Hrs.**

**Max. Weight: 30**

**Part A (Short Answers).**

Answer any *eight* questions. *Each question carries a weight of 1.*

1. Repeated Games
2. Full cost pricing
3. Nash equilibrium
4. Features of oligopoly
5. The Theory of Second Best
6. Clark-Wicksteed-Walras product exhaustion theorem
7. Barometric price leadership
8. Sen's theory of welfare
9. Maximin and Minimax strategy
10. Find the saddle point and value of the game

		PLAYER B		
PLAYER A	B1	B2	B3	
A1	10	20	30	
A2	15	25	10	
A3	20	30	40	

8 x 1 = 8)

**Part B (Short Essays)**

Answer any *six* questions. *Each question carries a weight of 2.*

11. Briefly explain Marris model of balanced growth.
12. Briefly examine the Marxian theory of distribution.
13. Explain John Rawl's approach to social welfare function.
14. Briefly explain the sales revenue maximisation model of Baumol.
15. Briefly explain the Bain's limit pricing theory.
16. Explain the concept Prisoner's dilemma
17. Critically evaluate Arrow's Impossibility theory of welfare.
18. What is Game Theory; explain the types of Game.

(6 x 2 = 12)

**Part C (Long Essays)**

Answer any *two* questions. Each question carries a weight of 5.

19. Distinguish between partial and general equilibrium analysis. Explain the 2x2x2 model of general equilibrium
20. Compare and contrast Kaldor and Kalecki model of distribution.
21. Explain the behavioural model of Cyert and March.
22. Critically evaluate Kaldor- Hicks compensation criteria.

(2 x 5 = 10)

**MAR ATHANASIUS COLLEGE (AUTONOMOUS),KOTHAMANGALAM**  
**M.A.DEGREE(CSS)EXAMINATION**  
**MACRO ECONOMICS - I**

**Time: 3 Hours**

**Max.weight:30**

**PART A (Very Short Answers)**

Answer any *eight* questions. Each question carries a weight of *1*

1. Consumption puzzle
2. Ricardian equivalence
3. Distinguish between autonomous investment and induced investment.
4. Tobin's q ratio.
5. Crowding out effect.
6. Phases of business cycle.
7. Pigou effect and Keynes effect
8. MEC
9. IS curve
10. Stagflation

(8 x 1 = 8)

**PART B (Short essays)**

Answer any *six* questions. Each question carries a weight of *2*

11. Critically examine relative income hypothesis.
12. Compare Classical and Keynesian labour market.
13. Critically examine accelerator theory of investment.
14. Short note on Fisher's Inter temporal choice in consumption.
15. What do you mean by investment function and what are the factors that influence investment function?
16. ISLM model.
17. Explain the income determination in simple Keynesian model.
18. Explain DMP model

(6 x 2 = 12)

**PART C (Long Essays)**

Answer any *two* questions. Each question carries a weight of *5*

19. Explain life cycle hypothesis of consumption. Discuss difference of this hypothesis with permanent income hypothesis.
20. Examine AD-AS model.
21. Examine Classical Keynesian and post-Keynesian theories of investment.
22. Critically examine Kaldor's model of trade cycle.

(2 x 5 = 10)

MAR ATHANASIOUS COLLEGE (AUTONOMOUS),KOTHAMANGALAM  
M.A.DEGREE(CSS)EXAMINATION  
INDIAN ECONOMY - 1

Time: 3 Hours

Max.weight:30

**PART A (Very Short Answers)**

Answer any *eight* questions. Each question carries a weight of *1*

1. Privatization
2. NABARD
3. Co-operative Banks
4. MGNREGP
5. Green Revolution
6. Tourism
7. Globalisation
8. SEZ.
9. Kisan Credit Card
10. NITI AYOJ

(8x1=8)

**PART B (Short essays)**

Answer any *six* questions. Each question carries a weight of *2*

11. Explain the role of service sector for economic development.
12. Write a note on national manufacturing policy and policy measures.
13. Discuss the measures to boost tourism sector in India.
14. Explain the impact of economic reforms on Indian economy.
15. Discuss the share of service sector in GDP and employment.
16. What are the major challenges faced by the agriculture sector in India?
17. Discuss the sources of rural credit in agriculture sector.
18. Do you favour disinvestment in India .Substantiate your arguments.

(6x2=12)

**PART C (Long Essays)**

Answer any *two* questions. Each question carries a weight of *5*

19. Examine the sector wise contribution of GDP of India.
20. Critically examine the new industrial policy of 1991
21. Examine the relevance of food security in the present day scenario .
22. Indian economic growth is one of service sector driven by passing industry .Discuss

(2x5=10)



**MAR ATHANASIOUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM**  
**M.A.DEGREE(CSS)EXAMINATION**

**DEVELOPMENT ECONOMICS**

**Time: 3 Hours**

**Max.weight:30**

**PART A (Very Short Answers)**

**Answer any eight questions. Each question carries a weight of 1**

1. State Multi-dimensional growth.
2. Distinguish between Growth and Development
3. Explain the centre-periphery thesis
4. Vicious circle of poverty
5. Explain Kaldor's growth law
6. Capability and Entitlement approach
7. Sustainable development
8. International inequality
9. Discuss the influence of dualism and process of structural transformation
10. Gender gap

(8x1=8)

**PART B (Short essays)**

**Answer any six questions. Each question carries a weight of 2**

11. Discuss about the regional growth differences among Indian states.
12. What is the relevance of Human Development index to the developing countries?
13. Distinguish between PQLI and HDI
14. Explain the concept of missing women.
15. What do you mean by development gap? How will you measure it?
16. Explain the theories of dependence and unequal exchange.
17. Explain the concept of Development as freedom
18. Explain the Rostow's stages of growth.

(6x2=12)

**PART C (Long Essays)**

**Answer any two questions. Each question carries a weight of 5**

19. Discuss Myrdal's theory of cumulative causation.
20. Explain the role of human capital and economic development.
21. Evaluate the strategies for improving education and employment.
22. Explain the stages of development and structural changes.

(2x5=10)

**MAR ATHANASIOUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM**  
**M.A.DEGREE (CSS) EXAMINATION**  
**KERALA ECONOMY**

**Time: 3 Hours**

**Total weight: 30**

**Section A: Short Answers**

*(Answer any eight questions. Each question carries a weight of 1)*

1. Structural Imbalances
2. Sustainable Development
3. Gender Equality
4. Human Development
5. Cropping Pattern
6. Special Agricultural Zone
7. Food Security
8. Information Technology
9. Inclusive growth
10. Decentralized Planning

(8 x 1 = 8)

**Section B: Short essays**

*(Answer any six questions. Each question carries a weight of 2)*

11. Explain the factors responsible for the agricultural stagnation in Kerala
12. What are the causes of Industrial backwardness in Kerala?
13. Explain the extent and causes of unemployment in Kerala
14. Discuss Kerala's development experience and challenges
15. Discuss the role of public sector undertakings in Kerala economic development
16. Examine the performance of service sector in Kerala
17. Evaluate the performance of Local Government bodies in Kerala
18. What are the important functions of Local Finance Commissions?

(6 x 2 = 12)

**Section C: Long Essays**

*(Answer any two questions. Each question carries a weight of 5)*

19. Briefly explain the economic growth and the structural change of the state of Kerala since its formation.
20. Give a brief account of the migration of labour force from Kerala to the Gulf countries. Point out its impact on the Kerala economy.
21. Give an account of the achievements of Kerala in the field of health and education.
22. Examine the population profile of the State according to 2011 census. Describe the theory of demographic transition with special reference to Kerala.

(2 x 5 = 10)

**MAR ATHANASIOUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM  
M.A.DEGREE (CSS) EXAMINATION**

**INTERNATIONAL TRADE**

**Time: 3 Hours**

**Max.weight:30**

**PART A (Very Short Answers)**

**Answer any eight questions. Each question carries a weight of 1**

1. International Economics.
2. International Trade
3. Intra - Industry Trade
4. Absolute Cost Advantage
5. Reciprocal Demand
6. Opportunity Cost
7. Dumping
8. BRICS
9. Factor Endowment
10. Offer curve

(8x1=8)

**PART B (Short essays)**

**Answer any six questions. Each question carries a weight of 2**

11. Distinguish between International Trade and Inter regional Trade.
12. Explain Leontief Paradox
13. Assess the nexus between international trade and the income distribution of a nation
14. Give a brief account of the recent trade war between China and USA
15. Define protection. List out the arguments for protection
16. Write brief note on New Protectionism
17. Write a note on Factor Reversal Test
18. Give a brief account of European Union

(6x2=12)

**PART C (Long Essays)**

**Answer any two questions. Each question carries a weight of 5**

19. Critically examine the Comparative Cost Advantage theory of Inter National Trade
20. "Trade in goods is after all proved to be trade in factors". Discuss
21. Briefly explain the Reciprocal Demand Theorem as expounded by John Stuart Mill
22. Analyse the arguments for and against Free Trade

(2x5=10)

**MAR ATHANASIOUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM**  
**M.A. DEGREE (CSS) EXAMINATION**  
**ENVIRONMENTAL ECONOMICS**

Time: 3hrs

Total Weight: 30

**Section A: Short Answers**

*Answer any **eight** questions. Each question carries a weight of 1*

1. Environment
2. Environment Externalities
3. Pigouvian taxes
4. Coase Theorem
5. Tragedy of commons
6. Sustainable Development
7. Total economic value
8. SMS approach
9. Option value
10. Shadow pricing

(8 x 1 = 8)

**Section B: Short Essays**

*(Answer any **six** questions. Each question carries a weight of 2)*

11. Why is environmental economics considered as a normative science?
12. Explain the economy environment interaction with the help of a production possibility curve.
13. What are the implications of the material balance model?
14. Explain briefly the main reasons for market failure in the case of environment goods.
15. Write a note on contingent valuation methods.
16. Discuss the Travel cost method.
17. Explain Common-Perrings model of Sustainable development
18. Explain how Hedonic pricing is used to explain environmental valuation.

(6 x 2 = 12)

**Section C: Long Essays**

*(Answer any **Two** questions. Each question carries a weight of 5)*

19. Narrate the relationship between man and nature from a historical perspective.
20. Explain the term environment externalities. What are the measures offered to correct it?
21. Describe the Environmental Life cycle analysis
22. Examine the rules and Indicators of sustainable development

(2 x 5 = 10)

**MAR ATHANASIOUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM**  
**M.A.DEGREE (CSS) EXAMINATION**  
**PUBLIC ECONOMICS**

Time:3hrs

Total Weight :30

**Section A: Short Answers**

Answer any **eight** questions. Each question carries a weight of 1

1. Pareto optimality
2. Market failure
3. Externalities
4. Fiscal policy.
5. Pure and impure public goods
6. Free rider problem
7. Critical limit hypothesis
8. Pressure groups
9. Directly unproductive activities
10. Cost Benefit Analysis

(8 x 1=8)

**Section B: Short Essays**

(Answer any six questions. Each question carries a weight of 2)

11. Discuss the problem of equity –efficiency trade off in public finance.
12. Explain why collective supply is better than market supply for public goods
13. What are the main reasons for government failure?
14. What are the objectives of fiscal policy in a developing country like India?
15. Ability to pay theory is considered as the ideal ethical basis of taxation. Discuss
16. What do you mean by economic theory of democracy?
17. Explain the Benefit approach to taxation.
18. What is the rationale behind public choice theory?

(6 x 2 = 12)

**Section C: Long Essays**

(Answer any **two** Questions. Each question carries a weight of 5)

19. Elucidate the contribution of Prof. P.A. Samuelson to the theory of Social goods.
20. Narrate the changes in the role of the state in a modern society from a historical perspective.
21. Explain the concept of voting paradox.
22. Why do markets fail in the case of public goods? How can it be corrected?

(2 x 5 = 10)