SACRED HEART COLLEGE (AUTONOMOUS), THEVARA

KOCHI, KERALA, 682013

CREDIT AND SEMESTER SYSTEM (CSS)

CURRICULUM

For

Post Graduate Programme in

ECONOMICS

INTRODUCED FROM 2020 ADMISSION ONWARDS

BOARD OF STUDIES IN ECONOMICS

Sacred Heart College, Thevara, Kochi, Kerala

DEPARTMENT OF ECONOMICS

SACRED HEART COLLEGE (Autonomous), THEVARA

CURRICULUM AND SYLLABI
CREDIT AND SEMESTER SYSTEM
(CSS-PG)
For
MASTER OF ARTS (MA) IN ECONOMICS

(INTRODUCED FROM 2020 ADMISSION ONWARDS)

BOARD OF STUDIES IN ECONOMICS

Sacred Heart College, Thevara, Kochi, Kerala

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Preface

Fundamentally human beings at both individually and societal levels as well as nations are facing the problem of satisfying unlimited wants with limited means or resources. Economics is a discipline that addresses this fundamental aspect of humanity. Resource limitation necessitates choices among alternatives that provide effective and optimal solutions. In addition to that economics evaluates solutions and alternatives in terms of efficiency, cost effectiveness, impact on current and future generations, environmental sustainability, and welfare consequences. The problem of decision making becomes extremely complex under different social, economic and market settings either because of inadequacy of sufficient amount of relevant information or because of inability of human brain to take rational decision in the presence of large volume of complex information. The need of the hour is sustained growth with least adverse effect on environment and equitable distribution of the fruits of growth that ensures fair share to the people living in the lower layers of society. Elimination of poverty and unemployment are important issues addressed by economics to enlarge the choices of people and to allow them to develop to their fullest potential to contribute to the society and to themselves on one hand and add to the happiness at both personal and social levels. It is in this context that the study of economics is of much importance in the present socio- economic setting.

The Master of Arts in Economics is a 2-year fulltime master's program with each year comprising two semesters that equip graduates with the advanced knowledge and skills required for an economic analyst in the world of business, finance, the consulting industry, academic institutions orbanking and non-banking financial institutions. The training provides a thorough understanding of fundamental economic principles, application of mathematical / statistical methods and modelling, and the use of computer software for large-scale data analysis. This is accomplished through the economics core and elective courses and a dissertation. The M.A. in Economics prepares the student to understand contemporary economic theory and its application to problems arising in agriculture, industry, business, finance and government. The program is primarily dedicated for producing well-trained researchers and managers and academicians in the field of Economics and prepares students for a career in economics, finance, industry, banking, academics, government policy departments and services.

The Board of Studies in Economics decided to revise the curriculum in economics to address the varying requirements of a fast changing world and to make the students aware of latest developments in the subject of economics and toequip them with adequate skills. While attempting restructuring, the existing conditions relating to infrastructure, work load and staff pattern have been properly taken care of and provision for full utilization of the existing faculty is proposed.

The present syllabus is an outcome of serious academic and intellectual efforts made by expert committees constituted by Economics department for each course for restructuring and revising the syllabus. Endeavours were made seriously to review the existing curriculum and to incorporate current trends for formulating a fresh one. Thus the existing syllabus was revamped taking into account the broader perspective

of Curriculum. Besides introducing courses in the newer areas and modernizing existing courses where necessary. To equip students with skill in data analysis a new course on Computer Application in Economics was introduced. The aim of the dissertation is to provide experiential learning through active participation that enables the student to develop and demonstrate analytical, judgmental, presentation and communication skills. A model format given along with the syllabus provides guidelines to write a thesis scientifically. The task of restructuring was done after considering proposals and suggestions of the members of Board of Studies in Economics for course restructuring. The proposals and suggestions of members of Board of Studies in Economics were consolidated at its meeting held on 13th July 2019. The members of the expert committees for course restructuring and Board of Studies in Economics did a commendable work to accomplish the task of course restructuring and syllabus revision.

In recent year's university and collegiate education has changed significantly from imparting knowledge to the creation of skills and promotion of innovation. Moreover, education has become outcome based. The present syllabus of MA Economics is formulated in the framework of Outcome Based Education (OBE).

I acknowledge the valuable help, guidance and co-operation we have received from various quarters in accomplishing the task of framing the new Syllabus. I wish to express my sincere thanks to Rev. Fr. (Dr) Johnson Palackappillil, Principal, Sacred Heart College (Autonomous), Thevara, who gave all the help, motivation and support in revising and restructuring the P G programme. I am greatly indebted to members of board of studies: Dr. K V Raju, Associate Professor, Department of Economics, Sacred Heart College, Thevara, Dr. Dr. S. Harikumar**,** Professor, Dept. of Applied Economics, Cochin University of Science and Technology, Dr. Manju S Nair Professor in Economics, Department of Economics University of Kerala, Kariavattom, Thiruvananthapuram, Mr. Justine George, Assistant Professor in Economics, St. Paul's College, Kalamasserry, Mr. Alex K Baby, Chairman, and Managing Director of the Hedge Group of Companies (Hedge Equities) for their invaluable suggestions, advice and support. I express my sincere gratitude to all the faculty members of Department of Economics of the College. I make a special mention to Dr. K V Raju, Associate Professor, Department of Economics, Sacred Heart College, Thevara, Dr. V T Jose Associate Professor (Retired)and MPhil Coordinator, Dr.Siby Abraham, Assistant Professor, and Mr. Vinil K.V, Assistant Professorwho, did a commendable job in making the syllabus revision possible. I wish to express my gratitude to Nabila M, Anaida Ann Jacob and Renuka S (Special invitees) for their assistance and support.

10/08/2019
Madhusudhanan Nair M S, Chairman,
PG Board of Studies in Economics &
Head of Department of Economics
Sacred Heart College (Autonomous) Thevara

AIMS OF THE PROGRAM

The program is designed, in general, to provide students with the proper understanding of economic theory and its applications in various situations. Students are expected to gain skill in applying the analytical methods followed in economics. It also prepares the students for research in economics to produce new knowledge and for careers in economics and policy making. The specific objectives of the program are given below:

1. To expand the knowledge acquired by students at the graduate classes at in various aspects of economics and increase the depth of knowledge in economics
2. To prepare students for empirical verification of theoretical knowledge
3. To develop understanding regarding the complexity of economic system processes and its interdependence with other disciplines
4. To prepare students for application of economic thinking to find out the causes and solutions of social and economic problems
5. To equip students with statistical and econometric tools to collect process and analyse data to interpret results to find answers to various social and economic questions and to develop problem solving ability.
6. To promote independent and self- directed spirit of inquiry and lifelong learning
7. To stimulate critical thinking and to develop the ability to approach problems and situations from different angles.
8. To prepare students for PhD,MPhil and NET examination
9. To provide sufficient knowledge and competence for employment in various fields requiring economic thinking and reasoning

Programme outcomes for the Postgraduate students

At the end of the programme, the students are able to

1. Exercising their critical thinking in creating new knowledge leading to innovation, entrepreneurship and employability
2. Effectively communicate the knowledge of their study and research in their respective disciplines to their stakeholders and to the society at large.
3. Make choices based on the values upheld by the college, and have the readiness and know-how to preserve environment and work towards sustainable growth and development
4. Develop an ethical view of life, and have a broader (global) perspective transcending the provincial outlook

5. Explore new knowledge independently for the development of the nation and the world and are able to engage in a lifelong learning process.

Program Specific Outcomes

At the end of the program the students should be able to

1. Access knowledge already created and published in journals, books, government reports and public documents with proper understanding of the sources available.
2. Display their knowledge and understanding in economic theory and gain proficiency in financial market instruments and operations.
3. Gains proficiency over economic concepts and the ability to develop new ones wherever necessary
4. Evaluate of economic theories, situations critically and be able to explore alternative solutions and arrive at best possible solutions
5. Formulate research problems, conducts enquiry and collect and analyse empirical data to interpret results
6. Write summary reports of a research and various controversies and discussions in economics with an analytical and critical mind
7. Display proper understanding of environmental, developmental, national and international economic issues
8. Displays logical thinking and reasoning and gains problem solving ability.
9. Creates new knowledge, by synthesizing existing knowledge and evaluating various socio- economic issues using economic reasoning

CHAPTER I

SACRED HEART COLLEGE (AUTONOMOUS) THEVARA, KOCHI
REGULATIONS FOR POST GRADUATE PROGRAMMES UNDER CREDIT SEMESTER SYSTEM (CSS) – 2020

1. Title

These regulations shall be called '**REGULATIONS FOR POST GRADUATE PROGRAMMES UNDER CREDIT SEMESTER SYSTEM (CSS) – 2020**

2. Scope

Applicable to all Post Graduate (PG) programmes of the college with effect from 2020-21 admissions. The provisions herein supersede all the existing regulations for the Post Graduate programmes of the college.

3. Definitions

i. '**Programme**' means the entire course of study and examinations.

ii. 'Duration **of Programme'** means the period of time required for the conduct of the programme. The duration of post-graduate programme shall be of 4 semesters and M Phil programmes shall be 2 semesters.

iii. **'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 with 5 contact hours of one hour duration

iv. **'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/ study tour /seminar / project / practical training / assignments/evaluation etc., to meet effective teaching and learning needs.

v. **'Credit' (Cr)** of a course is the numerical value assigned to a course according to the relative importance of the content of the syllabus of the programme.

vi. '**Extra credits**' are additional credits awarded to a student over and above the minimum credits required for a programme

vii. '**Programme Credit'** means the total credits of the PG/M Phil Programmes. For PG programmes the total credits shall be 80 and for M.Phil. it shall be 40.

viii. **'Programme Elective course'** Programme Elective course means a course, which can be chosen from a list of electives and a minimum number of courses is required to complete the programme.

ix. '**Programme Project'** Programme Project 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 Institute in order to submit a dissertation on the project work as specified.

x. '**Internship**' is on-the-job training for professional careers.

xi. '**Plagiarism**' Plagiarism is the unreferenced use of other authors' material in dissertations and is a serious academic offence.

xii. '**Seminar'** seminar means a lecture by a student expected to train the student in self-study, collection of relevant matter from the books and Internet resources, editing, document writing, typing and presentation.

xiii. '**Evaluation'** means every course shall be evaluated by 25% continuous (internal) assessment and 75% end course/end semester (external) assessment.

xiv. '**Repeat course'** is a course that is repeated by a student for having failed in that course in an earlier registration.

xv. **'Audit Course'** is a course for which no credits are awarded.

xvi. '**Department'** means any teaching Department offering a course of study approved by the college / Institute as per the Act or Statute of the University.

xvii. '**Department Council'** means the body of all teachers of a Department in a College.

xviii. **'Faculty Advisor'** is a teacher nominated by a Department Council to coordinate the continuous evaluation and other academic activities undertaken in the Department.

xix. '**College Co-ordinator** means a teacher from the college nominated by the College Council to look into the matters relating to CSS-PG System.

xx. **'Letter Grade'** or simply '**Grade**' in a course is a letter symbol (O, A, B, C, D, etc.) which indicates the broad level of performance of a student in a course.

xxi. 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.

xxii. **'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.

xxiii. '**Semester Grade point average'** (SGPA) is the value obtained by dividing the sum of credit points (CP) obtained by a student in the various courses taken in a semester by the total number of credits taken by him/her in that semester . The grade points shall be rounded off to two decimal places. SGPA determines the overall performance of a student at the end of a semester.

xxiv. **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.

xxv. '**Grace Marks'** means marks awarded to course/s, as per the orders issued by the college from time to time, in recognition of meritorious achievements in NCC/NSS/Sports/Arts and cultural activities.

4. ATTENDANCE

Being a regular college, physical presence in the regular activities, especially, classes and exams, is mandatory for the students. However, if a student secures 75% of attendance he/she is eligible to appear for the exams, provided there are no other impediments like disciplinary proceedings, malpractice record etc.

i. **Absence:**A student found absent for one hour in the forenoon or afternoon session is deprived of the attendance for the entire session as far as eligibility for final exam is concerned.

ii. The hour related calculation in a course is meant for awarding marks for the course concerned, where applicable.

iii. **Late entry**: A student is supposed to be in time for the class. Late arrival related treatment is left to the discretion of the individual teacher. However, as a norm, a late arriving student may be permitted to the class, if it is not inconvenient or distraction to the class as such; though attendance MAY NOT BE GIVEN. Late arrival beyond 5 minutes is treated as ABSENCE; though the teacher may consider permitting the student to sit in the class.

iv. **Leave**: A student has to formally report his/her absence with reasons either in advance, or immediately after the absence for obtaining an approved leave. This applies to all sorts of leave – medical, on duty or other.

v. The student is supposed to report in prescribedformat on the very next day of the absence; however, up to a week's time is permitted. Afterwards, the leave applications will not be considered.

vi. The student has to retain a copy/section of the approved leave form and produce the same as proof, in case there is any confusion regarding the leave sanctioning. In the absence of such proof, the claims will not be entertained.

vii. **Duty Leave**: A student representing the college in sports, arts, social service or academic matters, has to get sanction from the class teacher concerned and submit the leave application form duly endorsed by the class teacher and Head of the department, and submit it to the Vice Principal. The same will be forwarded by the Vice Principal for attendance entry. **SPORTS**: The approval of the Department of Physical Education and the class teacher is required. The time limit for submission mentioned above is applicable in the case of duty leave as well.

viii. **Condonation**: A student may have the privilege of condonation of attendance shortage (up to a maximum of 10 days) on the basis of genuineness of the grounds of absence (medical reasons or college duty), duly recommended by the department. This is not a matter of right. It is a matter of privilege based on Principal's discretion and the good conduct of the student on the campus. A student of PG programme may have only one such opportunity.

ix. **Re-admission**: A student whose attendance is inadequate will have to discontinue the studies. Such students, whose conduct is good, may be re-admitted with the approval of governing council, on the basis of recommendation from the department, and assurance from the student and the guardian regarding good conduct and compliance in academic and discipline matters. For this the prescribed re-admission fee has to be paid.

As a condition for re-admission, the student should have cleared all academic arrears, or should have appeared for the exams in which he/she is having an arrear (if the results are not out), and should have fulfilled all academic assignments prescribed by the department for compensating for his lack of attendance.

x. **Unauthorised absence & removal from rolls**: A student absent from the classes continuously for 10 consecutive working days without intimation or permission, shall be removed from the rolls, and the matter intimated to the student concerned. On the basis of recommendation of the department concerned, re-admission process may be permitted by the Principal.

5. PROGRAMME REGISTRATION

i. A student shall be permitted to register for the programme at the time of admission.

ii. A PG student who registered for the programme shall complete the same within a period of 8 continuous semesters from the date of commencement of the programme.

6. PROMOTION:

A student who registers for the end semester examination shall be promoted to the next semester. However, in extreme circumstances, a student having sufficient attendance who could not register for the end semester examination may be allowed to register notionally by the Principal with the recommendation of the Head of the department concerned and, by paying the prescribed fee.

7. EXAMINATIONS

All the End Semester Examinations of the college will be conducted by the Controller of Examination. The Principal will be the Chief Controller of Examinations. An Examination committee consisting of the Chief Controller of Examinations, Controller of Examinations, Additional Chief Superintendent, Deans, IQAC Coordinator and other faculty members

nominated by the Principal will act as an advisory body on the matters relating to the conduct of examinations.

8. EVALUATION AND GRADING

The evaluation scheme for each course shall contain two parts;

a. **Continuous Internal Assessment (CIA) and**

b. **End Semester Examination (ESE).**

The internal to external assessment ratio shall be 1:3, for both courses with or without practical. For all courses except the courses offered by the school of communications, there shall be a maximum of 75 marks for external evaluation and maximum of 25 marks for internal evaluation. In the case of courses offered by the school of communications,the internal to external assessment ratio shall be 1:1. (In their cases, the components for evaluation and their respective marks shall be determined by their Board of Studies).Both internal and external evaluation shall be carried out in the mark system and the marks are to be rounded to the nearest integer.

a. **Continuous Internal Assessment (CIA)/ Continuous Assessment**: The internal evaluation shall be based on predetermined transparent system involving periodic written tests, assignments, seminars/viva/field study/industrial visits/study touretc.with respect to theory courses and based on written tests, lab skill/records/vivavoceetc.with respect to practical courses. The marks assigned to various components for internal evaluation as follows.

Components of Internal Evaluation (for theory)

	Components	**Marks**
i.	Assignments	5
ii	Seminar	5
iii	Quiz/Field study/Industrial Visit/Viva Voce/Study Tour	5
iv	Two Test papers(2x5)	10
	Total	25

i. **Assignments**: Every student shall submit one assignment as an internal component for every course.

	Components	**Marks**
i.	Punctuality	1

ii	Content	2
iii	Conclusion	1
iv	Reference/Review	1
.	**Total**	**5**

ii. **Seminar**: The seminar lecture is expected to train the student in self-study, collection of relevant matter from the books and Internet resources, editing, document writing, typing and presentation.

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Components	**Marks**
Content	2
Presentation	2
Reference/Review	1
Total	**5**

iii. A quiz or viva or field survey or any suitable method shall be used by the course teacher to assess the students and a maximum of 5 marks shall be awarded for this component

iv. **Class Tests**: Every student shall undergo two class tests as an internal component for every course.

Components of Internal Evaluation (for practical)

Components	**Marks**
Laboratory Involvement	5
Written/ Lab Test (2X5)	10
Record	5
Viva Voce	5
Total	25

b. End Semester Examination (ESE): The End Semester Examination in theory courses shall be conducted by the college with question papers set by external experts/ question bank. The evaluation of the answer scripts shall be done by the examiners based on a well-defined scheme of evaluation given by the question paper setters/Prepared as per the direction of the Chairman, Board of Examiners. The evaluation of the End Semester Examinations shall be done immediately after the examination preferably through the centralised valuation.

c. Project

Project work is a part of the syllabus of most of the programmes offered by the college. The guidelines for doing projects are as follows:

i. Project work shall be completed by working outside the regular teaching hours.

ii. Project work shall be carried out under the supervision of a teacher in the concerned department or an external supervisor.

iii. A candidate may, however, in certain cases be permitted to work on the project in an industrial / Research Organization/ Institute on the recommendation of the Supervisor.

iv. There should be an internal assessment and external assessment for the project work in the ratio 1:3

v. The external evaluation of the project work consists of valuation of the dissertation (project report) followed by presentation of the work and viva voce.

vi. The mark and credit with grade awarded for the program project should be entered in the grade card issued by the college.

Components of Internal Evaluation for Projects

Components	**Marks**
Topic/Area selected	2
Experimentation/Data collection	5
Punctuality-Regularity	3
Compilation	5
Content	5
Presentation	5
Total	**25**

vii **Components of External Evaluation for Projects**

Components	**Marks**
Topic/Area selected	5
Objectives	10
Experimentation/Data collection	15
Content/Analysis	20
Presentation	10
Conclusions/Findings/Summary	10
Reference	5
Total	**75**

d. Comprehensive Viva-voce

Comprehensive Viva-voce shall be conducted at the end of the programme, which covers questions from all courses in the programme as per the syllabus.

Note: The Board of studies of the concerned subject is permitted to make changes, if necessary, in the credits and internal–external ratio for the projects and comprehensive viva-voce without changing the total credit 80.

e. Grade and Grade Points

For all courses (theory & practical), grade point are given on a 8-point scale based on the total percentage of marks, (CIA+ESE) as given below:-

Percentage of Marks	**Grade Point (GP)**	**Grade**	**Indicator**
95 and above	10	***A+***	***Outstanding***
85 to below 95	9	***A***	***Excellent***
75 to below 85	8	***B+***	***Very Good***
65 to below 75	7	***B***	***Good***
55 to below 65	6	***C*** $^{+}$	***Fair***
45 to below 55	5	***C***	***Average***
40 to below 45	4	***D***	***Pass***
Below 40	0	***E***	***Deficient (Fail)***

Grades for the different semesters and overall programme are given based on the corresponding SGPA/CGPA as shown below:

SGPA/CGPA	**Grade**	**Indicator**
9.0 and above	***A+***	***Outstanding***
Equal to 8.0 and below 9.0	***A***	***Excellent***
Equal to 7.0 and below 8.0	***B+***	***Very Good***
Equal to 6.0 and below 7.0	***B***	***Good***
Equal to 5.0 and below 6.0	***C*** $^{+}$	***Fair***
Equal to 4.0 and below 5.0	***C***	***Pass***
Below 4.0	***D***	***Deficient(Fail)***

A **separate minimum of 40% marks** required for a pass for both internal evaluation and external evaluation for every PG programme.

A candidate who has not secured minimum marks/credits in internal examinations can re-do

the same registering along with the end semester examination for the same semester, subsequently.A student who fails to secure a minimum marks/grade for a pass in a course can be permitted to write the examination along with the next batch.

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. For the successful completion of semester, a student should pass all courses and score at least the minimum CGPA grade **'C'**. However, a student is permitted to move to the next semester irrespective of her/his SGPA.

Credit Point (CP) of a course is calculated using the formula

CP = Cr x GP, where Cr = Credit; GP = Grade point

Semester Grade Point Average (SGPA) of a Semester is calculated using the formula

SGPA = TCP/TCr, where

TCP = Total Credit Point of that semester $= \sum_1^n \mathrm{CPi}$**;**

TCr = Total Credit of that semester $= \sum_1^n \mathrm{Cri}$

Where n is the number of courses in that semester

Cumulative Grade Point Average (CGPA) of a Programme is calculated using the formula

CGPA $= \sum(\mathrm{SGPA} \times \mathrm{TCr}) \Big/ \sum \mathrm{TCr}$

SGPA/CGPA shall be round off to two decimal places

To ensure transparency of the evaluation process, the internal assessment marks awarded to the students in each course in a semester shall be published on the notice board/website at least one week before the commencement of external examination. There shall not be any chance for improvement for internal mark.

The course teacher and the faculty advisor shall maintain the academic record of each student registered for the course which shall be forwarded to the controller of examinations through the Head of the Department and a copy should be kept in the department for at least two years for verification.

9 Admission

The eligibility criteria for admission to all PG programmes shall be published by the college along with the notification for admission.

10 Registration for the examination

a. All students admitted in a programme with remittance of prescribed fee are eligible for the forthcoming semester examinations.

b. Online application for registration to the various End Semester Examinations shall be forwarded to the CE along with prescribed fee for each course in prescribed format.

c. The eligible candidates who secure the prescribed minimum attendance of the total duration of the course and possess other minimum qualification prescribed in the regulations for each course shall be issued the hall tickets. The hall ticket shall be downloaded by the students from the college website.

d. The mode of fee remittance shall be through the prescribed bank.

11 Supplementary Examinations

Candidates who failed in an examination can write the supplementary examination conducted by the College along with regular examinations.

12 Improvement of Examination

There will be no improvement examinations for PG programmes

13 Promotion to the Next Higher Semester

A candidate shall be eligible for promotion from one semester to the next higher semester if,

a.) He / she secures a minimum 75 % attendance and registered for the End Semester Examination of the programme for which he/she is studying.

b.) His / her progress of study and conduct are satisfactory during the semester completed, as per the assessments recorded by the course teachers and the Head of the Department concerned.

14. Certificates

1. Diploma and Degree certificates are issued by the Mahatma Gandhi University, Kottayam as per the act and statues of the University on the submission of the consolidated mark / score cards of the students by the College.
2. A consolidated mark / scored card shall be issued to the candidates after the publication of the results of the final semester examination taken by the candidate.
3. A Course Completion Certificate with classification shall be issued to students till the provisional certificate is issued by the university.

15. Award of Degree

The successful completion of all the courses with ‘C’ grade shall be the minimum requirement for the award of the degree.

16. Monitoring

There shall be a Monitoring Committee constituted by the Principal consisting of faculty

advisors, HoD, a member from Teaching Learning Evaluation committee (TLE) and the Deans to monitor the internal evaluations conducted by college. The Course teacher, Class teacher and the Deans should keep all the records of the internal evaluation, for at least a period of two years, for verification.

Every Programme conducted under Credit Semester System shall be monitored by the College Council under the guidance of IQAC Coordinator, Controller of Exams, academic Deans and HoDs. An academic committee consisting of the Vice Principal, Deans and teachers nominated by the Principal shall look after the day-to-day affairs of these regulations.

17. Grievance Redressal Mechanism

In order to address the grievance of students regarding Continuous internal assessment (CIA) a three-level Grievance Redressal mechanism is envisaged. A student can approach the upper level only if grievance is not addressed at the lower level.

Level 1: At the level of the concerned course teacher

Level 2: At the level of a department committee consisting of the Head of the Department, a coordinator of internal assessment for each programme nominated by the HoD and the course teacher concerned.

Level 3: A committee with the Principal as Chairman, Dean of the Facultyconcerned, HOD of the department concerned and one member of the Academic council nominated by the principal every year as members

Chapter II

SYLLABUS FOR POST GRDUATE PROGRAM (MA)IN ECONOMICS

The courses of study and the semester wise allocation is presented in this chapter

SYLLABUS- MASTER OF ARTS IN ECONOMICS (Course Structure)

Course Code	Course Title	Teaching hours	Credit
Semester 1			
20P1ECOT01	Microeconomic Theory – I	5	4
20P1ECOT02	Macroeconomic Theory and Policy	5	4
20P1ECOT03	Indian Economy: Issues and Policies-I	5	4
20P1ECOT04	Economics of Development and Growth-I	5	4
20P1ECOT05	Quantitative Tools for Economic Analysis	5	4
Semester 2			
20P2ECOT06	Microeconomic Theory – II	5	4
20P2ECOT07	Advanced Macroeconomic Theory and Policy	5	4
20P2ECOT08	Indian Economy: Issues and Policies- II	5	4
20P2ECOT09	Economics of Development and Growth- II	5	4
20P2ECOT10	Statistical Tools for Economic Analysis	5	4
Semester 3			
20P3ECOT11	International Trade Theory and Policy	5	4
20P3ECOT12	Public Economics I	5	4
20P3ECOT13	Research Methods in Economics	5	4
20P3ECOT14	Basic Econometrics	5	4
	Elective	5	3
Semester 4			
20P4ECOT15	International Financial System and Economic Policy	5	4
20P4ECOT16	Public Economics II	5	4
	Elective	5	3
	Elective	5	3
	Elective	5	3
20P4ECOPJ	Project / Dissertation-cum-Viva		2
20P4ECOCV	Comprehensive Viva		2
	Total Credits		80
	Extra Credits for Internship/Industry Training*		2

*Extra Two (2) credits will be given to those students who complete internship/industry training for a minimum period of 72 hours. Internship should be done during summer vacation without affecting class attendance and it is Optional.

ELECTIVE PAPERS

Course Code	Course Title
20P3ECOEL1	**Advanced Econometrics**
20P3ECOEL2	**Environmental Economics**
20P3ECOEL3	**Monetary Economics**
20P3ECOEL4	**Capital Market**
20P3ECOEL5	**Economics of Social Sector**
20P3ECOEL6	**Industrial Economics**
20P3ECOEL7	**Mathematical Economics**
20P3ECOEL8	**Computer Applications in Economic Analysis**
20P3ECOEL9	**Agricultural Economics**

Any one of the electives should be selected in Semester 3 and from the remaining elective papers any three papers should be selected in semester 4. For the elective Paper Computer Applications in Economic Analysis the theory hours are same as that of other papers and practical classes should be arranged as extra classes. Examination is only in theory and practical aspect includes only interpretation of results of analysis.

Semester I

Microeconomic Theory – I
Macroeconomic Theory and Policy
Indian Economy: Issues and Policies-I
Economics of Development and Growth-I
Quantitative Tools for Economic Analysis

Course No.	Course Code	Course Title	Credits	Teaching hours
01	20P1ECOT01	MICROECONOMICS I	4	90

Course Outcomes

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	The knowledge of the consumer behaviour enables the students in taking rational buying decisions also helps the firm to design suitable market strategies	PO1,PSO1	A	C	15
CO2	To understand the recent advancements in the traditional theories of demand and to analyse the superiority of these theories over traditional theories	PO1/PSO1	U	C	15
CO3	The students get equipped with the knowledge and skill in effective decision making under uncertain market situations, and also understands the importance of time allocation and household management	PO1/PSO1	Ap	C	20
CO4	The understanding of economies of scope and learning curves and help in analysing the nature and functioning of modern multiproduct firms	PO1/PSO1	U	C	15
CO5	Develops the skill in analysing business phenomena in terms of transaction cost saving	PO1/PSO1	Ap	C	15
CO6	The students develop the understanding of the economic level of information search possible under different situations and the concept of bounded rationality	PO1/PSO1	U	C	10
CO7	Compares the traditional and modern theories of cost and analyse the superiority of modern theory of cost over traditional theory	PO1/PSO1	An	C	10
CO8	Understands the concept of asymmetric information and its implications	PO1/PSO1	U	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module I. Recent Developments of the Theory of the Consumer Behaviour:

Demand functions: Cobb-Douglas preferences, Quasi-linear preferences-Hicksian revision of demand theory-Recent developments in the theory of market demand: Pragmatic approach and Linear expenditure system (constant elasticity demand function, dynamic versions of demand, Linear expenditure system),Duality theory: Expenditure function, the indirect utility function, Roy's identity and the Slutsky Equation– Homothetic utility functions, Household Time Allocation model of Garry S.Becker-Characteristics model of Kelvin Lancaster, Network externalities: positive and negative Network externalities: Bandwagon, Snob and Veblen effects.

(30 Hours)

Module II. Choice under uncertainty:

The St. Petersburg Paradox and Bernoullian Hypothesis, Neumann and Morgenstern theory (Expected utility function),Attitudes (Preferences) towards risk: Risk averse, risk loving & risk neutral, economics of insurance,risk pooling and risk spreading, Friedman and Savage hypothesis, Markowitz hypothesis, Armstrong's theory of marginal preference, Behavioural economics.

(22 hours)

Module III. Theory of Production and Costs

Homogeneous and non-homogeneous production function, Technical progress and production function, Cobb Douglas, CES and VES (Variable Elasticity Substitution) and TranslogProduction functions and their properties, Equilibrium of a single product firm: choice of optimum combination of factors, equilibrium of a multiproduct firm.

Traditional and Modern theory of cost, Derivation of cost functions from production functions, Engineering production function and engineering cost- multiproduct firms, Economics of scale and economics of scope, learning curve (Dominic Salvatore).

(23 Hours)

Module 1V Theory of firm and Asymmetric Information

Nature of the firm and boundaries of the firm (Ronald Coase)-Transaction cost approach of Williamson- Team production approach by Armen Alchian and Harold Demsetz.

Information economics-search cost-Markets with asymmetric information- market for lemons – Adverse selection- moral hazard- screening and market signalling- principal agent problem (agency theory)- Search Theories

(15 Hours)

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11. Robert M.Frank (1991), Microeconomics and Behaviour,McGraw Hill International Editions

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16. Hicks John R.(1956),A Revision of Demand Theory, Oxford: Clarendon Press

17. Walter Nicholson – Christopher Snyder -, "Microeconomic Theory- Basic Principles and Extensions", South Western, USA.

18. Andrew Schotter, "Microeconomics – Modern Approach", South Western, USA.

Course No.	Course Code	Course Title	Credits	Teaching hours
02	**20P1ECOT02**	**MACROECONOMICS I**	4	**90**

The syllabus for macroeconomics is divided into two courses Macroeconomics Theory and policy in the First semester and Advanced Macroeconomics in the second semester. It gives a broad idea about the contemporary macroeconomic policy debates concerning national income, inflation, interest rates, investment, fiscal and monetary policy. The course is designed to make a systematic coverage of fundamental concepts and relationships among various macroeconomic entities.

The main objectives the course is to focus on the interaction of markets in an economy to understand the fluctuations in unemployment, inflation and growth. Besides the course provides a basic understanding of the theories and principles relating to the macroeconomic policy and debates concerning the behaviour of output, employment, money supply, interest rate, and other economic aggregates that affect business environment. The focus lies primarily in understanding how an economy functions, the reasons for macroeconomic fluctuations and the corrective measures taken from various spheres such as monetary, fiscal and international trade.

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Evaluates Keynesian Income Expenditure model up to four sectors	PO5, PSO1, PSO7	E	C	10
CO2	Understands the IS-LM model up to four sectors	PO5, PSO1, PSO7	U	C	12
CO3	Understands the concept of consumption and consumption functions	PO5, PSO1, PSO7	U	C	2
CO3	Evaluates various post Keynesian consumption theories	PO5, PSO1	E	C	15
CO4	Develops an understanding about the concept and types of investment	PO5, PSO1,PSO7	U	C	8
CO5	Compares Keynesian and Post-Keynesian investment theories	PO5, PSO1	An	C	15
CO6	Develops basic knowledge about labor market searches and unemployment	PO5, PSO1	U	C	4
CO7	Understands the concept and theories of trade cycle	PO5, PSO1,	U	C	20
CO 8	Analyses global recession and its policy implications	PO5, PSO1, PSO3	U	C	4
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluate.

Module-I: Macroeconomic frameworks.

A. Keynesian Income - Expenditure Model up to four sectors

B. IS-LM Model up to four sectors - Monetary and Fiscal Policy using IS-LM, AD-AS Curves frame work with Price and income axis, Mundell-Fleming Open Economy model.

C. Keynes Effect – Pigou Effect and External effect, Ricardian Equivalence.

(30 Hours)

Module-II: Behavioural Foundations of Macro Economics

A. Consumption Functions – Kuznet‘s Consumption Puzzle – Fisher‘s Model of Inter-temporal Choice-Relative Income Hypothesis –-Permanent Income Hypothesis, Life Cycle Hypothesis, Random Walk Model- David Liabson Behavioural Hypothesis-Empirical Evidence- Policy implications of consumption theories.

B. Labour Market -Classical and Keynesian Views - DMP (Diamond, Mortenson, Pissarides model.) (20 Hours)

Module III: Investment Function

A. Investment Function –Neo Classical, Keynesian, Post Keynesian and Neo-Keynesian Theories of Investment-- MEC and MEI- Accelerator theory-Capital Stock Adjustment Principles- – Tobin‘s q-ratio- Modigliani Miller Theory-Metzler Inventory Cycle Model.

(20 Hours)

Module-IV: Trade Cycle Theories

Trade Cycles Theories – Multiplier- Accelerator Interactions Models- Samuelson- Hicks- Kaldor- Political Business Cycle (William Nordhaus) .Overview of Great Depression of 1930s- Economic recession of 2008-12. Policy measures.

(20 Hours)

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13 Andrew B. Abel and Ben S. Bernanke (2010): Macroeconomics, Pearson, New Delhi

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Supplementary Readings

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2. Robert J. Barro (1984): Macroeconomics, John Wiley & sons, New York.

3. The Palgrave Dictionary of Economics 2Rev.Ed (2010) –Edited by Steven N.Darlauf and Lawrence E Blume Vol.1-8 (Online Edition)

4. Jagadesh Handa (2011) : Macroeconomics, World Scientific, New York.

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7. Federeic S. Mishkin (2011) : Macroeconomics: Policy and Practice , Addion Wesley , Old Tappan, New Jersey.

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9 J.E.King (Ed) (2003): Elgar Companion to Post Keynesian Economics, EE , Cheltenham.

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14. Krish Bhasker & David Murray (1976): Macroeconomic Systems, Croom Helm, London

Course Number	**Course Code**	**Course Title**	**Credits**	**Teaching hours**
03	**20P1ECOT03**	**INDIAN ECONOMY: ISSUES AND POLICIES I**	4	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understanding economic growth of the country and to analyse the contribution of each sectors to income output and employment of the country	PO5/PSO	U	C	10
CO2	Learning the role and significance of NITI AAYOG in planning of the country and to identify its drawbacks and achievements	PO2/PSO2	An	P	10
CO3	Understanding the role of India in the globalised era and to critically analyse the recent policy initiatives	PO4/PSO7	U	C	13
CO4	Identifying the importance of agriculture sector and analysing its performance since independence. Also identifying the role of the agrarian sector in the international arena and its impact in terms of trade of the country	PO1/PSO3	U	C	13
CO5	Identifying the role of industries in accelerating economic growth and to analyse the trends in industrial productivity	PO2/PSO3	U	C	11
CO6	Understanding the new economic reforms and to assess its impact	PO1/PSO2	An	C	10
CO7	Understanding the role played by service sector in employment generation and economic development	PO1/PSO1	U	C	13
CO 8	Understanding and analysing the overall impact of the three sectors in nation building	PO5/PSO2	An	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module-1 Economic Growth and Reforms

National Income – Growth and measurement – Methodological issues in estimation - Contribution of different sectors to output, employment and income – Database on Indian economy – Saving and investment: Trend and pattern.

Economic Planning: objectives and strategies, failures and achievements – Inclusive Growth – NITI Aayog and its structure.

Economic reforms in the early 90s – Globalization – Second Generation Economic Reforms – Recent policy initiatives: Demonetization – Digital economy-India as an emerging economy in the globalized world.

(30 hours)

Module -2 Agriculture

Performance since Independence – Farm size and productivity – Green revolution – Current issues in Indian agriculture - Technological change in agriculture – New agricultural policy, sustenance of agriculture growth - Agricultural finance and marketing – Credit facilities, Role of Co-operatives – Agriculture marketing, Pricing – WTO and Indian agriculture- Agrarian distress and related issues – Food Security – Government support and schemes in agriculture sector.

(20 hours)

Module -3 Industry

Growth and pattern of industrial development – Industrial stagnation debates – Trends in industrial productivity – Industrial Financing.

Industrial policies in India – Privatization and Disinvestment – Make in India initiatives – Small and Medium Enterprises (SMEs) – Cottage and small scale industries – Globalization and technology transfer – Role of FDI in industrialization process – ICT based industrial development strategy.

(20 hours)

Module -4 Service

Growth and performance of service sector in India – Social infrastructure: Health, Education – government spending in social infrastructure. Economic infrastructure: Banking and financial sector crises – Transport – Telecommunication – Energy.

Recent infrastructure policies – Information Technology revolution in India – Research and Development – Inadequacies and structural bottlenecks in infrastructure development.

(20 hours)

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13. Basu Kausihik, Martens Annemie (Eds) (2011) the New Oxford Companion to Economics in India, Oxford University Press, New Delhi
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Course No	Course Code	Course Title	Credits	Teaching hours
04	20P1ECOT04	ECONOMICS OF DEVELOPMENT AND GROWTH I	4	90

Development Economics has gained importance because of sustained interest of the developing countries in uplifting their economic conditions by restructuring their economies to acquire greater diversity, efficiency and equity in consonance with their priorities. This paper is devoted to the policies and programmes required to empower the people to make development more sustainable and equitable.

	Course Outcome	POs/PSOs	CL	KC	Class Sessions
CO 1	Develops conceptual clarity on the various dimensions of development	PO1, PSO1, PSO2	U, An	C	10
CO 2	Enables the student to evolve new strategies for achieving sustainable development and inclusive growth	PO1, PO3, PSO1, PSO2	U,C	C	12
CO 3	Equips the student community with the theoretical and empirical material for enhancing their capability to address the basic problems confronted by the society	PO1, PO3, PSO1, PSO2	U, An	F	10
CO 4	Understands and critically evaluates alternative theories of growth	PO1, PO3, PSO1, PSO2	U,E	C	15
CO 5	Understands of the recent literature, both empirical and analytical, on theories of underdevelopment and growth in developing countries	PO1, PO3, PSO1, PSO2	U, An	C	10
CO 6	Develops conceptual clarity on the various dimensions of development	PO1, PO3, PSO1, PSO2	U, An	C	10
CO7	Analyses various theories associated with its growth and development	PO1, PSO1, PSO2	An	C	10
CO8	To identify the strategic factors in the development of the less developed countries	PO1, PSO1, PSO2	An	C	13
	TOTAL HOURS OF INSTRUCTION				90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module I: Development Economics; an introduction

Importance of development Economics – Economic development vs growth. Globalisation & interdependence of the world Economy – Development Gap – Inverted U hypothesis, Lorenz curve, Gini- Coefficient. Various indices: PQLI, HDI, HPI, Multi-dimensional Poverty Index, Gender related indices; GDI, GEM, GII - Capability and Entitlement approach - Development as freedom- Basic needs approach – Human Rights based approach; three core values of development. The concept of sustainable development. (25 hours)

Module II: Perpetuation of underdevelopment

Stages of development & structural changes: Sector thesis - Rostow's stages of growth - Kaldor's growth laws.

Vicious Circle of Poverty-Influence of dualism and the process of structural transformation-cumulative causation - International inequality - Centre-periphery models - Regional growth differences - theories of dependence and unequal exchange.

(20 hours)

Module III: Theories of Economic growth & Development

Classical theories of Development: Smith, Ricardo -Marx and Schumpeter on development and future of capitalism. Harrod -Domar, Johan Robinson, Solow, Kaldor models.

Endogeneous growth models: Ramsey, Romer, Uzawa-Lucas, AK, Arrow, Grossman & Helpman Aghion & Howitt.

(25 hours)

Module IV: Population and development

Human capital and development - Population Growth and development - demographic dividend- the concept of optimum population - Importance of education and health in economic development - gender gap and development – Development of social and economic infrastructure – Corruption, crime, social exclusion and development - social engineering and inclusive growth.

(20 hours)

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UNDP : Human Development Report, 2010

Course No	Course Code	Course Title	Credits	Teaching

				hours
05	**20P1ECOT05**	**QUANTITATIVE TOOLS FOR ECONOMIC ANALYSIS**	**4**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understand and remember matrix and their mathematical operations,Determinants, co-factors inverse and Rank of a matrix	PO1/PSO9	U/R	C	5
CO2	Evaluate solutions of simultaneous equations using inverse and Cramer's rule. Explore the applications of matrix in economic analysis	PO5/PSO9	E/A	c	12
CO3	Understand sets, series ,Limits and derivative of a function, difference, differential equations and partial differentiations, Maxima and minima function.	PO1/PSO9	U	C	12
CO4	Applications of differentiation in economic analysis, Euler's theorem and its applications in economics.	PO5/PSO9	A	C	11
CO5	Understand rules of integration, Methods of integration- integration by substitution, integration by parts, and integration by partial fractions. Indefinite and definite integrals.	PO1/PSO9	U	C	15
CO6	Applications of integration– derivation of revenue and cost functions from marginal functions – consumer's and producer's surplus. Numerical integration - Trapezoidal rule, Simpson's One-third rule	PO5/PSO9	A	C	10
CO7	Understand Input –Output analysis. Linear Programming problems – formulation of LPP, Solution of LPP using graphical and simplex method. Duality in LPP	PO1/PSO9	U	C	15
CO8	Applications of LPP from Economics and Finance	PO5/PSO9	A	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module I

Vectors, Matrices and their applications. Mathematical operations on matrices, determinants, minors, cofactors and inverse of matrices, Rank of a matrix, solution of simultaneous equations using inverse and Cramer'srule. Applications of matrices in Economics

Module II

Sets, functions and continuity, sequence, series, Limit of a function, Derivative of a function, Rules of differentiation, Difference and Differential equations with Applications.

Partial differentiation and its applications, first and second order partial derivatives – total differentiation of functions of two independent variables - Economic applications of Partial differentiation on elasticity, demand. Maxima and minima of functions involving two variables, Lagrange multiplier method. Marginal rate of substitution.Homogeneous functions,Euler's theorem and its applications in economics.Cobb Douglas production function.

Module III

Integral calculus – rules of integration, Methods of integration- integration by substitution, integration by parts, and integration by partial fractions.Indefinite and definite integrals. Applications o f integration– derivation of revenue and cost functions from marginal functions – consumer's and producer's surplus. Numerical integration - Trapezoidal rule, Simpson's One-third rule

Module IV

Input –Output analysis. Linear Programming problems – formulation of LPP, Solution ofLPP using graphical and simplex method.Duality in LPP its properties and its interpretation, Applications from Economics and Finance

REFERENCES

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Semester II

Microeconomic Theory - II
Advanced Macroeconomic Theory and Policy
Indian Economy: Issues and Policies- II
Economics of Development and Growth- II
Statistical Tools for Economic Analysis

Course No	Course Code	Course Title	Credits	Teaching hours
06	**20P1ECOT06**	**MICRO ECONOMICS II**	**4**	**90**

Objectives: This course is intended to acquaint the student in 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 equip the student to apply microeconomic principles in the areas of exchange and welfare.

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Develops skill in formulating business strategy in the context of market imperfections	PO1,PSO6	Ap	C	10
CO2	Understands the basic theory of distribution and the source of income generation	PO1/PSO1	U	C	15
CO3	Understand the use of game theory of models in decision making	PO1/PSO6	U	C	10
CO4	To understand the different managerial theories of the firm	PO1/PSO1	U	C	10
CO5	Analyses the impact of micro decisions on macro instability	PO1/PSO1	An	C	10
CO6	Develops skill in applying compensation principle under situations where a proposed change causes damage to someone but gains to others	PO1/PSO1	Ap	C	10
CO7	Evaluates alternative welfare criteria	PO4/PSO1	E	C	15
CO8	to understand the concept of oligopoly market and different oligopoly models	PO1/PSO1	U	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module 1 Oligopoly

Non collusive oligopoly models: Cournot, Bertrand, Chamberlin, Kinked demand curve model, Stackelberg) – Collusive oligopoly models: cartel and mergers, price leadership.

Game theory (Two person zero sum game –non zero sum game- Nash equilibrium, Prisoner‘s dilemma, dominant, Maximin-Minimax and mixed - pure strategies, saddle point solution, cooperative versus Non-cooperative games, repeated games, sequential games.

(25 Hours)

Module 2 Alternate Theories of the firm

Critical evaluation of marginal analysis,– Full-cost pricing Principle, Different models of objective of the firm: (Managerial theories of the firm): Baumol’s sales revenue maximization model, Marris’s Model of managerial enterprises, Williamson’s model of managerial discretion, Behavioural theory of Cyert and March, Limit pricing theory:Bain’s model.

(20 hours)

Module 3 Theory of Distribution

Marginal Productivity theory of distribution, product exhaustion theorem-Euler’s theorem, Elasticity of input substitution (technical) and technological progress and factor shares (income distribution) - Macro theories of distribution-Ricardo-Marx- Kalecki – Kaldor.(20 hours)

Module 4 General Equilibrium and Welfare Economics

Partial and general equilibrium -2x2x2 model of general equilibrium (Walrasian system)-Existence, Uniqueness and stability of equilibrium, Welfare Economics –Pareto optimality-Kaldor-Hicks Compensation Criterion, Scitovsky criterion- Social welfare function of Bergson and Samuelson - theory of second best-Arrow‘s impossibility theorem-Sen‘s theory of welfare, Rawls theory of justice.

(25 Hours)

REFERENCES

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2. Koutsoyiannis A. (1979), Microeconomic Theory (2nd edition), Macmillan(Chapter 9 to 19, 22, 23) Varian H. (2000), Intermediate Microeconomics: A modern Approach (5th Edition) Affiliated East West Press Private Limited

3. Gravelle H. and R.Rees (2004), Microeconomic s, Pearson London

4. Ferguson and Goulds (2000), Microeconomic Theory (6th edition), Richard Irvin, All India Traveller Delhi

5. Stigler G. (1996), Theory of Price (4th Edition), Prentice Hall India, New Delhi

6. G.C da Costa (2004), Value and Distribution in Neoclassical and Classical Systems, Himalaya Publishing House,Mumbai (Chapter 5)

7. N.G.Mankiw (2009), Economics Principles and Application, Cengage Learning, Printed in India

8. B.DouglasBernheimAand Michael D.Whinston (2009), Microeconomics, Tata McGraw-Hill New Delhi (Chapter19, 20, 21)

9. Baumol W.J. (1985), Economic Theory and Operations Analysis (4th edition), Prentice Hall, New Delhi (Chapter 24)

10. SenAmartya (1982),Choice Welfare and Measurement, OUP, New Delhi

11. Mishan E.J (1969), Welfare Economics: An Assessment, North Holland, Amsterdam Little I.M.D.(1957),Critique of Welfare Economics(2nd edition) OUP, Oxford

12. Thomas J. Nechyba(2011), Microeconomics: An Intuitive Approach, South Western Cengage Learning(Chapter 29)

13. Maria Moschandreas (1994), Business Economics, Routledge Publishers (1994)(Chapter 3,4,10)

14. Robert M.Frank (1991), Microeconomics and Behaviour, McGraw Hill International Editions

15. John M.Gowdy (2011), Micro Theory Old and New: A students‘ Guide, Orient BlackswanPvt Ltd, New Delhi (Chapter 7)

16. Walter Nicholson – Christopher Snyder -, “Microeconomic Theory- Basic Principles and Extensions”, South Western, USA.

17. Andrew Schotter, “Microeconomics – Modern Approach”, South Western, USA.

Course No	Course Code	Course Title	Credits	Teaching hours
07	20P1ECOT07	ADVANCED MACRO ECONOMIC THEORY AND POLICY	4	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Compares Classical and Keynesian Approaches to Inflation	PO1, PSO1, PSO7	An	C	13
CO2	Understands the Phillips Curve	PO1, PSO1, PSO7	U	C	8
CO3	Compares the concepts of Monetarism and Fiscalism	PO5, PSO1, PSO7	An	C	15
CO3	Develops an understanding about Rational Expectations Hypothesis	PO5, PSO1	U	C	10
CO4	Develops an understanding about the concept Real Business Cycle Theory	PO5, PSO1,PSO7	U	C	8
CO5	Understands Neo Keynesian and Disequilibrium Models	PO5, PSO1	U	C	10
CO6	Evaluates Post Keynesian Theories	PO5, PSO1	E	C	10
CO7	Understands the concept and theories of New Keynesian Macro Economics	PO5, PSO1,	U	C	10
CO 8	Analyses Insider Outsider Models	PO5, PSO1, PSO3	An	C	6
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module-I: Theory of Inflation and Unemployment

A. Classical, Keynesian and Monetarist Approach to Inflation – Structuralist Theory of Inflation – Inflation targeting.

B. Phillips Curve – Short run and Long run Phillips Curve – The Natural Rate of Unemployment– Adaptive Expectation Hypothesis – Augmented Phillips Curve- – Tobin‘s Modified Phillips Curve – NAIRU-Cost of Inflation- Anti-inflationary Measures. (20 Hours)

Module-II: Modern developments in Macroeconomics – Classical School.

The New Classical Macroeonomics- Monetarism –Monetarist-Fiscalist debate on Policy Activism (Rules versus discretion) –Cold Turkey vs Gradualism-Taylor‘s Rule . (10 Hours)

Module III: Modern Developments in Macroeconomics- New Classical School

New Classical Macroeconomics:

i. Rational Expectations Hypothesis – Monetary surprise model – Inter-temporal substitution model – Ineffectiveness proposition – Lucas critique.

ii. Supply Side Economics- Supply Shocks and Stagflation- Wedge Model-Laffer Curve - Policy Implications.

iii. Real Business Cycle Theory.

iv. The Dynamically Stochastic General Equilibrium model.

(25 Hours)

Module-IV: Modern developments in Macroeconomics – Keynesian School.

A. Neo-Keynesianism - Disequilibrium Models - R. W. Clower and Leijonhufvud – Dual Decision Hypothesis–Quantity Constrained Model of Malinvaud and Barro - Co-Ordination Failure.

B. Fundamental arguments of Post – Keynesians – Kalecki‘s Pricing Model – Financial Instability model of Hymn Minsky.

C. New Keynesian Macroeconomics- Nominal Rigidities- Real Rigidities- Sticky Price(Menu Cost) Model- Efficiency Wage Hypothesis - Insider- outsider Model and Hysteresis - Policy Implications.

(35 Hours)

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1. Gregory Mankiw, N (2010): Macroeconomics, 7th Ed, Worth Publishers, Dufield, U.K.
2. Kamran Dadkhah (2010): The Evolution of Macroeconomic Theory and Policy, Springer, London.
3. Rudiger Dornbusch, Stanley Fisher and Richard Startz (2007) 7th Ed: Macroeconomics, TMH, New Delhi
4. Rosalind Levacic and Alexander Rebmann (2006): Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies, MacMillan, New York.
5. Richard T. Froyen (2008) L: Macroeconomics- Theories and Policies, Pearson, Singapore.
6. Garner Ackley (1989): Macroeconomics: Theory and Policy,Collier MacMillan, New York.
7. A.J. Westaway and T.G.Weyman Johnes (1978): Macroeconomics, Theory, Evidence and Policy, Longman, New York.
8. Andrew B. Abel and Ben S. Bernanke (2010): Macroeconomics 4th Ed. Pearson, Singapore.
9. Olivier Blanchard (2011): Macroeconomics 4th Ed- Pearson, Singapore.
10. Errol D‘Souza (2008): Macroeconomics, Pearson, Singapore.
11. Lefteris Tsoulfidis : (2010), Competing Schools of Economic Thought, Springer, London.
12. Brian Snowdon and Howard R.Vane (*Ed)* (2003): A Macroeconomics Reader, Routledge, London.
13. Brian Snowdon, Howard Vane and Peter Wynarczyk (2002): A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought, Aldershot, England.

14. Farrokh K. Langdana:(2009):Macroeconomic Policy: Demystifying Monetary and Fiscal Policy . Second edition, Springer, Langdana, Farookh

15. James K. Galbrith and William Darity,Jr (1994): Macroeconomics-Houghton , Boston, USA.

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18. Garner Ackley (1989): Macroeconomics: Theory and Policy, Collier MacMillan, New York.

19. A.J. Westaway and T.G.Weyman Johnes (1978): Macroeconomics, Theory, Evidence and Policy, Longman

20. Ben J. Heijdra Frederick van der Ploeg *(2002):* Macroeconomics, OUP, London..

21.Ott, D.J, Ott, A.E and Yoo J.H (1975): Macroeconomic theor, Mc GrawHill, New York.

22. M.J.C. Surrey (1976): Macroeconomic Themes, Wiley Eastern, Singapore.

Supplementary Readings:-

1. William H .Branson (2005): Macroeconomic Theory and Policy: EWP, New York

2. Robert J. Barro (1984): Macroeconomics, John Wiley, New York.

3. The Palgrave Dictionary of Economics 2Rev.Ed (2010) –Edited by Steven N.Darlauf and Lawrence E Blume Vol.1-8 (Online Edition)

4. Jagadesh Handa (2011): Macroeconomics, World Scientific, New York.

5. Eric J. Pentacoste (2002): Macroeconomics: An Open Economy Approach, Mcmillan, London

6. Edmund S. Phelps (1990) : Seven Schools of Macroeconomic Thought:-Arne Ryde Memorial lectures , Clarendon Press , Oxford.

7. Federeic S. Mishkin (2011) : Macroeconomics: Policy and Practice , Addion Wesley , Old Tappan, New Jersey.

8. O. F. Hamuda (2009) : Money, investment and Consumption: Keynes‘ Macroeconomic Re-thoughts, Edward Elgar , Cheltonham.

9. J.E.King (Ed) (2003): Elgar Companion to Post Keynesian Economics, EE , Cheltanhalm.

10. Breden Shehan (2009): Understanding Keynes‘ General Theory, Palgrave , New York.

11. Horld R William and John Huffnagle (Ed) (1969): Macroeconomic Theory: Selected Readings, ACC, NY

12. M.G. Mueller (1978): Readings in Macroeconomics, Surjeeth Publications , New Delhi.

13. Burda & Wyplosz (6th ed): Macroeconomics, Oxford University Press, South Asia Edition

Course No.	Course Code	Course Title	Credits	Teaching hours
08	20P1ECOT08	INDIAN ECONOMY: ISSUES AND POLICIES II	4	90

	Course Outcome	POs/PSO	CL	KC	Class Sessions
CO1	Understand the basic characteristics of Indian economy, its problems and prospects	PO1, PSO2	U	F	10
CO2	Understand the nature of demographic profile, the causes and the effect of population growth and its distribution in India.	PO1, PSO2	E	C	10
CO3	Gain knowledge about the labour market trend and the employment scenario in the country.	PO1, PSO2	U	C	10
CO4	Be aware of the magnitude of poverty and inequality in India and understand the poverty alleviation measures in the country.	PO2, PSO2	E	F	15
CO5	Comprehend the significance of fiscal reforms in India post 1991.	PO1, PSO2	U	C	10
CO6	Understand the structure of Indian financial system and the role of banking and insurance sectors.	PO1, PSO2	U	C	15
CO7	Evaluates the structure and direction of India's foreign trade.	PO1, PSO2	E	C	10
CO8	Analyses the structural changes, characteristics, emerging trends and issues of Kerala Economy.	PO1, PSO2	An	C	10
	TOTAL HOURS OF INSTRUCTION				90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module -1 Population and Employment

India's demographic profile – Demographic dividend – Rural-urban migration – Population Policies.

Trends in Employment – Unemployment,Nature of unemployment in the organized and

unorganized sectors - Recent employment guarantee programmes in India.

Labour market reforms – Demand and supply in labour market – Child labour – Labour policy and social security.

(25 hours)

Module -2 Poverty and Inequality

Poverty: Definition – head count ratio – poverty gap – squared poverty gap index – Extend and distribution of poverty in India.

Food Security and Nutrition – Rural development – issues and strategies and micro level planning - SHGs and microfinance

Inequality: Definition – Dimensions of inequality - Regional imbalances in India – Financial inclusion – Policy initiatives.

(20 hours)

Module -3 Fiscal Reforms, Financial and External Sector

Fiscal reforms in India post 1991 – Fiscal deficit trend - Fiscal policy: critical evaluation – Black money and Parallel Economy in India.

Indian financial system – RBI - Banking and insurance – Capital market –Second generation financial reforms.

Structure and Direction of India‘s Foreign Trade- Export Import policy- FEMA- Balance of Payments, Post 90 Trends- Exchange Rates, Trends – Policies, MNC’s India.

(20 hours)

Module - 4 Kerala Economy

Growth and Structure – Kerala Model – Trends in agricultural production - Industrial backwardness – growth of service sector. Growth areas: Construction, Tourism, Trade, Transport, Energy, Information Technology.

Migration: various dimensions, impact – Human Resource Development – Problem of educated unemployment - Environment degradation - Fiscal crisis – Domestic Migrant Labourers (DML) - Kerala in a globalized environment.

(25 hours)

REFERENCES

1. Agarwal A N (2017), Indian Economy: Problems of Development and Planning, Vikas Publishing House, New Delhi.
2. 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.
3. Mahendra K Premi (2009), India‘s Changing Population Profile, National Book Trust, Delhi.

4. Arvind Panagariya, (2013) Why Growth Matters: How Economic Growth in India Reduced Povertyand the Lessons for Other Developing Countries, Public Affairs, New Delhi.
5. Radhakrishna R , Shovan Roy (Eds)(2005) Handbook of Poverty in India, Oxford University Press , New Delhi
6. Uma Kapila, (2015) Indian Economy Performance And Policies, 15th edition, Academic Foundation-New Delhi
7. Jayaraj D, Subramanian S (2010) Poverty, Inequality and Population, Oxford University Press , New Delhi
8. Reethika Khera (2011) The Battle for Employment Guarantee, Oxford University Press , New Delhi
9. Gaurav Datt & Ashwini Mahajan, (2013) Indian Economy, 70th edition, S Chand Publishers, New Delhi.
10. Nagaraj R. (ed.) (2012) Growth, Inequality and Social Development in India: Is Inclusive Growth Possible?, Geneva: Palgrave MacMillan
11. Amartya Sen (2001) Development as Freedom, Oxford University Press , New Delhi
12. Amartya Sen, Jean Dreze (2005) India – Development and participation Oxford University Press , New Delhi
13. Sivaramakrishnan KC, Amitabh Kundu, (2005) Handbook of Urbanisation, Oxford University Press, New Delhi
14. Mahendradev S (2010) Inclusive Growth in India, Oxford University Press , NewDelhi.
15. Bhavani T A, Bhanumurthy N R,(2011), Financial Access in Post Reform India, Oxford University Press , New Delh
16. Mohan Rakesh (Eds) (2011), Growth with Financial Stability, Oxford University Press , New Delhi
17. Mihir Rakshit (2010) Money and Finance n the Indian Economy, Oxford University Press, New Delhi
18. George K K (1999), Limits to Kerala Model of Development, CDS, Trivandrum.
19. Sunil Mani, Anjii Kochar, Arun M Kumar, (2006) Crouching Tiger, Sacred Cows, D C Books, Kottayam .
20. B A Prakash (1999)Kerala's Economy: Performance, Problems, Prospects, SAGE Publications,
21. M. A. Oommen (2008) Reforms and the Kerala Model, Economic and Political Weekly, Vol. 43, No. 2 (Jan. 12 - 18, 2008), pp. 22-25.
22. K. T. Rammohan, (2000) Assessing Reassessment of Kerala Model,Economic and Political Weekly, Vol. 35, No. 15 (Apr. 8-14, 2000), pp. 1234-1236.
23. K. N. Harilal, K. J. Joseph, (2003) Stagnation and Revival of Kerala Economy: An Open

Economy Perspective, Economic and Political Weekly, Vol. 38, No. 23 (Jun. 7-13, 2003)pp. 2286-2294.

Course No.	Course Code	Course Title	Credits	Teaching hours
09	20P1ECOT09	ECONOMICS OF DEVELOPMENT AND GROWTH II	4	90

	Course Outcome	POs/PSOs	CL	KC	Class Sessions
CO 1	Critically evaluates some of the results in the literature, particularly those related to development issues	PO1, PO3, PSO1, PSO2	E	C, F	15
CO 2	Analyses the main issues, concepts and techniques in modern growth theory	PO1, PO3, PSO1, PSO2	An	C, P	15
CO 3	Develops conceptual clarity on the various dimensions of development and to identify the strategic factors in the development of the less developed countries	PO1, PO3, PSO1, PSO2	U, An	P	15
CO 4	Familiarizes with the conceptual routes, theoretical dynamics and practical strategies of growth and development	PO1, PO3, PSO1, PSO2	U, An	C	15
CO 5	Enables the student to evolve new strategies for achieving sustainable development and inclusive growth	PO1, PO3, PSO1, PSO2	U, C	C	15
CO 6	Understands of the recent literature, both empirical and analytical, on theories of underdevelopment and growth in developing countries	PO1, PO3, PSO1, PSO2	U, A	C	15

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module I: Partial theories of Economic Growth & Development

Critical minimum effort thesis – theory of big push – Low income equilibrium trap - Balanced and unbalanced growth - Lewis and Fei- Ranis models- internal and international migration- Todaro model- Choice of technique- Intermediate technology- Embodied and disembodied technological change- Capital output ratio.

(20 hours)

Module II: International trade & Development

Trade and development- Trade liberalization- Exports and growth-Alternative approaches to trade in developing countries- Prebisch-Singer theses-Models of export led growth- Neo Classical supply side model- BOP constrained growth model and virtuous circle model- Trade liberalization and poverty reduction – WTO and developing countries.

(25 hours)

Module III: Resource allocation & development

Investment criteria-Cost- benefits analysis- shadow prices and project evaluation- Role of the state - Objectives and role of monetary and fiscal policies in economic development. Uses of input-output analysis and linear programming in development planning.

(20 hours)

Module IV: Environment and Development

Economics & environment – environmental accounting – Sustainable Development Goals – Limits to growth -the techno centre approach – Brundtland commission approach to sustainable development – Sustainable development – International environmental issues (Trade & environment – Rio declaration – Kyoto Protocol) Climate economy interaction – Martin Weitzman's Dismal theorem.

(25 hours)

REFERENCES

1. Ray Debraj: Development Economics, Oxford, University Press 1999
2. Meier M. Gerald and Rauch: Leading issues in Economic Development Oxford University Press. (2000)
3. Thirlwall. A.: Growth and Development with special Reference to developing economies Palgrave Macmillan (2009)
4. Todaro M.P. D. Smith S.C: Economic development (8th Edition 2005) Person Education, Indian branch, Delhi
5. Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
6. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
7. Dev. Mahendra. S: Inclusive growth in India-collected essays. Oxford University press, New Delhi
8. (2010)
9. Chauduri Ray, Jayasri: An introduction to Development and Regional planning with special

10. reference to India. Orient Longman Kolkata (2001)
11. UNDP : Human Development Report, 2010

Course No.	Course Code	Course Title	Credits	Teaching hours
10	**20P1ECOT10**	**STATISTICAL TOOLS FOR ECONOMIC ANALYSIS**	**4**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understand the concepts of Probability, Random variables- Discrete and continuous types, probability distribution functions and its properties	PO1/PSO9	U	C	8
CO2	Understand Mathematical Expectation, moments. Standard distributions – binomial, Poisson, normal and lognormal distributions	PO1/PSO9	U	C	10
CO3	Understand and apply Central limit theorem	PO1/PSO1	U/Ap	C	4
CO4	Understand Population and Sampling, Determination of sample size, Sampling distributions - Statistic, sampling distributions of sample mean	PO1/PSO3	U	C	8
CO5	Applications of Sampling distributions – Chi square, t and F distributions	PO5/PSO9	Ap	C	15
CO6	Estimates - point and interval estimation, Maximum Likelihood Estimation and momentsc Confidence interval for the mean of a population using small and large samples.	PO1/PSO9	Ap	C	15
CO7	Understand the concept of hypothesis and applications of different methods of testing hypothesis.	PO1/PSO9	U,Ap	C	15
CO8	Applications of parametric and non-parametric tests	PO5/PSO9	Ap	C	15
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

Module I

Probability theory, Concepts of Probability, Random variables- Discrete and continuous types, probability distribution functions and its properties, Mathematical Expectation, moments. Standard distributions –binomial, Poisson, normal and lognormal distributions

Module II

Central limit theorem (without proof) and its applications, Population and Sampling, Determination of sample size, Sampling distributions - Statistic, sampling distributions of sample mean, chi-square, t, F distributions – uses of these sampling distributions.

Module III

Estimation - point and interval estimation. Method of Estimation, Maximum Likelihood Estimation and Method of moments. Confidenceinterval for the mean of a population using small and large samples.

Module IV

Testing of hypothesis - null and alternative hypotheses, simple and composite hypotheses, one tailed and two tailed tests. Type I and Type II errors. Critical and acceptance regions of a test, significance level and power of a test.Testing the mean of a population, large sample tests and small sample tests, Testing the difference between two means of independent and paired samples, testing the proportion of a population, Chi-square test of independence.

Non parametric tests, Sign test, Wilcoxon Matched Pairs test, (or Signed rank Test), run test, Fisher –Irwin test, Mann –Whitney test, Kendall's Coefficient of Concordance and Kruskal-Wallis test.

REFERENCES

1. Anderson, Sweemny and Williams Statistics for Business and Economics, 12th Edition, South-Western, 2016.
2. McClave , Benson and Sincich , A First Course in Business Statistics, 8th Edition, Prentice Hall., 2012
3. Lind A Douglas.,Marchal G William and Wathen A Samuel: Basic Statistics for Business and Economics, 5th Edition, McGraw Hill International Edn,2016
4. Mendenhall William., Beaver J Robert and Beaver M Barbara: Introduction to Probability and Statistics, 12th Edition, Thomson Brooks/Cole Publishers
5. Moore , McCabe, Alwan, Craig and Duckworth , The practice of Statistics for Business and Economics, H Freeman and Company, 2011.
6. Gupta S C and Kapoor V K: Fundamentals of Mathematical Statistics,11th Edition, Sulthan Chand and sons, New Delhi
7. Ross S: A first course in Probability, 3rd edition, Mac Millan New York 1985
8. Mendenhall William, Beaver J Robert and beaver M Brabara, Introduction to probability and statistics, 12th Edition, Thomas Books/ Cole Publishers, 2016.
9. Gerald Keller, Statistics for Management and Economics, 9th Edition , South Western, 2012.

10. Joseph F Healey , Statistics: A Tool for Social Research 8th Edition, Wardworth, 2012.
11. Sheldon M Ross, Introductory Statistics, 5th Edition, Associate Press, 2016.
12. Peter J Diggle and Amanda G Chetwynd, Statistics and Scientific Method: An Introduction for Students and Researchers, Oxford University Press, 2011.
13. Roxy Peck and Jay Devore , Statistics: The Exploration and Analysis of Data, 8th Edition Cengage, 2014.
14. Ronald M Weiers, Introduction to Business Statistics, 7th edition, South Western, 2010.

Semester III

International Trade Theory and Policy
Public Economics I
Research Methods in Economics
Basic Econometrics
Elective

Course No.	Course Code	Course Title	Credits	Teaching hours
11	20P1ECOT11	INTERNATIONAL TRADE THEORY AND POLICY	4	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Critically evaluates the course of development of trade theories	PO1/PSO3	E	C	7
CO2	Identifies different techniques and methods used in the empirical testing of theories and develops interest in research	PO5/PSO4	An	P	10
CO3	Identifies the effect of trade on factor rewards, consequences of factor growth on product mix and cases where growth can be immiserizing	PO1/PSO6	An	C	12
CO4	Evaluates the application of micro economic theory in the field of international trade to develop new trade theories	PO5/PSO6	E	C	13
CO5	Understands how technological superiority and continuous innovation places a country at a higher realm of competitive advantage and gets motivated for innovation	PO1/PSO2	U	C	11
CO6	Understands how nations and industries have gained international competitiveness	PO1/PSO3	An	C	8
CO7	Identifies the effects of tariff and situations where a tariff or restriction of trade is advisable	PO1/PSO1	An	C	10
CO8	Critically evaluates the Neo- protectionist measures adopted by nations	O1/PSO1	E	C	9
CO 9	Evaluates the costs and benefits of economic integration and international institutional framework regulating trade policy	PO1/PSO3	E	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates

MODULE 1. Classical trade theory and its Extensions (SUPERVISED STUDY)

Absolute Advantage and Comparative advantage- Restatement in terms of Opportunity cost Extension to more than two countries and commodities. Terms of trade: measurement and importance -Reciprocal demand and terms of trade- Static and dynamic gains from trade

(15 hours)

MODULE2. Neoclassical Trade theory

Heckscher Ohlin trade theory - Factor intensity reversal and Demand reversal - Empirical tests of HO theorem- Leontief's Test –Commodity approach and Factor content (HOV) approach -Factor price equalization theorem- traditional and Harrod –Johnson formulation- Effect of growth on trade –Rybsczynski theorem- Immiserizing growth- effects of technical progress on trade.

(20 hours)

MODULE 3 Post Heckscher- Ohlin Trade theories

Technology gap models-Imitation lag and product life cycle theories- technology cycles - Empirical tests of PLC - Neo Heckscher Ohlin Models- Falvey Model - Intra industry trade – causes and measurement - Monopolistic competition and trade - Neo Hotelling and Neo Chamberlinian Models Oligopoly Model- Brander Krugman Model- Recipocal dumping model - Porter Diamond model- Gravity model - Mayer-Melitz-Ottaviano hypothesis- Multi product firms Supply Chain - Management and international trade

(25 hours)

MODULE 4 International Trade Policy

Tariff and its effect on trading nations-Partial and General equilibrium approaches- Optimum Tariff Nominal and Effective rates of protection- Stolper-Samuelson Theorem- Metzler Paradox - Quotas and Non Tariff barriers to trade- Dumping -Economic integration- Levels of integration-Customs union – partial and general equilibrium approaches- Dynamic effects of Customs union - Economic integration among developing countries - Integration experiences- European Union- ASEAN, NAFTA, PAFTA, BRICS, GATT, WTO and international trade.

(30 hours)

REFERENCES

1. Sodersten, B and Reed G (1994) International Economics, Third Edition MacMillan Press London
2. Appleyard, D. R and Field A.J, Jr. (2014) International Economics 8thEdition McGraw Hill Education (India) Private Limited, New Delhi
3. Salvatore, D (2013) International Economics Trade and Finance 10th Edition. Wiley India Private Limited New Delhi
4. Chachiliades, M (1990) International Trade Theory and Policy MC Graw Hill, Kogakusha Japan
5. Krugman P R and Obsfield M (2009) International Trade Theory and Policy 8Th Edition, Pearson, Dorling Kindersley (India) Private Limited, New Delhi

Additional Readings

1. Intra-Industry Trade in Tourism Services Nuno Carlos LEITAO, Theoretical Journal of Applied Economics, *Volume XVIII (2011), No. 6(559), pp. 55-62*
2. Determinants of Intra-Industry Trade : Among Countries and across Industries Rudolf Loertscher and Frank Wolter ,Weltwirtschaftliches Archiv, Bd. 116, H. 2 (1980), pp. 280-293, Published by: Springer, Stable URL: https://www.jstor.org/stable/40438460
   Accessed: 08-07-2019 12:10 UTC
3. Global Supply Chains : Trade and Economic Policies for Developing CountriesPolicy Issues in International Trade and Services Study Series 55 Alesandro Nicita Victor O and Miho S UNCTAD, Geneva 2013.
4. On the Measurement of Intra Industry Trade: Some Further Thoughts. Stefano Vona, Published by: Spinger Stable URL: https://www.jstor.org/stable/40440060, Accessed: 08-07-2019 12:06 UTC

Course No.	Course Code	Course Title	Credits	Teaching hours
12	20P1ECOT12	PUBLIC ECONOMICS I	4	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Examines the role of government in an organized society	PO5,PSO1	E	C	5
CO2	Understanding the concept of government failure	PO5, PSO1	U	C	5
CO3	Develops an understanding about the nature and theories of Public Goods	PO5, PSO1	U	C	10
CO3	Develops an understanding of various aspects of the theory of Public Choice	PO5, PSO1	U	C	10
CO4	Develops an understanding of the role of fiscal policy in economic stabilization	PO5, PSO1	A	C	8
CO5	Understands the social goals of fiscal policy in a developing economy	PO5, PSO1	U	C	12
CO6	Makes the students aware of recent trends in taxation including GST, DTC etc	PO5, PSO1, PSO7	U	F	15
CO7	Develops an understanding of different theories of taxation and tax incidence	PO5, PSO1, PSO7	U	C	15
CO 8	Analyses the issues of black money in India and measures to mitigate the same	PO5, PSO1,PSO7	A	C	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates, cr-create

Module- I: Role of Government and Rationale for Public policies

Role of Govt. in organized society - Changing perspectives - Public sector and private sector co-operation or competition - Budget as a means of operationalizing the planning process – Govt. failure, Pareto optimality - market failure (causes) and rationale for government intervention.

(15 hours)

Module - II: Theory of Public goods

Public goods-Pure and Impure public goods, Merit goods, Club Goods, Local public goods - Provision of Public goods -Voluntary exchange models - Samuelson‘s contribution . Public goods and Market failure- the Free rider problem- Efficiency condition for public goods, Tiebout Model.

(20 hours)

Module –III: Public choice

Private and Public mechanisms for allocating resources-problems of preference revelation and aggregation - Downs theory of democracy-Politico economic interactions, voting system – Arrows

Impossibility Theorem – Pressure groups & Interest groups - bureaucracy - Rent seeking and Directly unproductive profit seeking (DUP)activities.(20 hours)

Module –IV: Fiscal Policy and Taxation

A. Fiscal policy for Stabilization- Neutral and Compensatory Finance and Functional Finance- Balanced Budget Multiplier - Social goals: Poverty alleviation and infrastructure Development, correcting distributional inequalities and Regional imbalances- Fiscal policy in LDCS like India.

B. Theories of Taxation- Benefit and ability to pay approaches - Theory of optimal taxation -Trade-off between equity and efficiency. Modern Theory of incidence , Theory and measurement of dead weight losses, Taxable Capacity, Tax Reforms in India, Chelliah Committee Report – Kelkar committee report I &II -Recent-trends-DTC-Incidence of Major taxes in India - VAT – CENVAT-GST.

C. Issues of subsidies in India and problem of black money

(35 hours)

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Course No.	Course Code	Course Title	Credits	Teaching hours
13	20P1ECOT13	RESEARCH METHODS IN ECONOMICS	4	90

Research in Economics is at once exciting and challenging because it is a living and breathing process of enquiry. The research methods guide the researcher to understand and appreciate the social and economic reality in an objective way. It is expected to generate the capability to develop a broader understanding and analysis of social and economic issues using appropriate methods tools and techniques.

	Course Outcome	POs/PSO	CL	KC	Class Sessions
CO1	Comprehend the basic concepts and principles of economic research	PO5, PSO4, PSO5	U	C	15
CO2	Search for, select and critically evaluate research articles and papers	PO5, PSO5	E	C	10
CO3	Understand interdisciplinary approach in social science research	PO5, PSO4	U	C	10
CO4	Prepare a literature reviewand formulate research questions	PO5, PSO4	Ap	C	10
CO5	Formulate a research design with valid hypothesis	PO5, PSO5	Ap	C	15
CO6	Gain experience in the collection of data and its analysis	PO5, PSO4, PSO5	U	F	12
CO7	Understand technology-enabled data processing in research	PO5, PSO5	U	C	8
CO8	Develop skills in writing a research proposal or a project plan	PO5, PSO4, PSO5	U	C	10

Module I –Introduction to Research Methodology

Meaning and definition of research- classification of research(pure, applied, exploratory, descriptive, historical, diagnostic, experimental, qualitative, quantitative) - importance, applications and limitations of social science research- interdisciplinary and trans-disciplinary approaches communication technology in research- Basic elements of the scientific method- theory and research- the meaning of methodology

(30 hours)

Module II- Research problem and design

An overview of the different steps in research process-selection of the topic and formulation of the research problem in Economics with illustrations- review of literature- Research design, features of a good design-different research designs for exploratory, descriptive, diagnostic and experimental research, Cross sectional design- Panel Studies, Blind Studies, case study method.

(20 hours)

Module III -Collection and analysis of data

Sample design- probability and non probability sampling- Sampling Errors, sources of hypothesis- Procedure for testing hypothesis-one tailed and two tailed tests – basics of the important parametric and non-parametric tests - Methods of collecting primary data- questionnaire and schedules- sources of secondary data on Indian economy- processing of data—Use of Internet in Research, INFLIBNET, Use of statistical packages for data analysis, basic awareness of SPSS and EXCEL

(30 hours)

Module IV- Analysis and Interpretation of data and Research report

Analysis and Interpretation of data, Methods of footnotes and referencing, Bibliography, Style Manuals (APA style, MLA style, ASA style etc.) drawing conclusions and reporting it-Structure of the research report- Types of reports Ethics in publication, Plagarism.

(20 hours)

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Course No.	Course Code	Course Title	Credits	Teaching hours
14	**20P1ECOT14**	**BASIC ECONOMETRICS**	**4**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understands how to apply regression techniques to statistical data and the basic assumptions of regression techniques	PO5/PSO7	U	C	11
CO2	Learning more about the estimation and testing process and to identify how good a model is by understanding a general linear regression model	PO1/PSO5	E	C	10
CO3	Analyse various issues related to regression techniques and evaluates its consequences and remedial steps	PO1/PSO4	An	C	12
CO4	Acquires the skills to interpret models involving qualitative information and to deal with equations involving simultaneity	PO5/PSO6	Ap	C	13
CO5	Learning to introduce dynamicity to the econometric models and to effectively estimate	PO1/PSO7	U	C	11
CO6	Understanding the application of econometrics to basic economic concepts and evaluating its mathematical and economic impacts	PO1/PSO6	U	P	8
CO7	Learning the basics of time series econometrics and to attain conceptual clarity	PO1/PSO4	U	C	10
CO8	Learning econometrics through software programmes like Gretl and SPSS and to learn its interpretation for economic analysis	O1/PSO5	Ap	P	5
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates, Cr-create

Objectives

The objective of this paper is to equip the students about the basic principles of Econometrics. This will help the students to apply econometric solutions to problems in economics.

Module –I: Introduction to Econometrics

Definition &Scope of Econometrics, Methodology of Econometrics-Simple Linear Regression Model- Assumptions- Estimation (through OLS) - Properties of Estimates- Guass Markov Theorem- Normality Assumptions-Statistical Inference- Testing Hypothesis.

General Linear Regression Model- Assumptions –Estimation and Testing- Fitness of the Model: R^2 and Adjusted R^2-Concept and Interpretation of Partial and Multiple Correlation

(25 hours)

Module -II: Problems in Regression Analysis

Issues of Regression through Origin -Scaling and Units of Measurement- Different Functional Forms of Regression Models and their Uses - Nature, Tests, Consequences and Remedial Steps of Problems of Heteroscedasticity, Auto-correlation and Multicollinearity-Problems of Specification Error-Errors in Measurement.

(20 hours)

Module – III: Regression with Qualitative Variables and Simultaneous Equations

DummyVariable Regression–Techniques and Uses-Models with Qualitative Dependent Variables-Logit, Probit, and Tobit Models.

Simultaneous equation Methods: Structural and reduced forms, Endogenous and exogenous variables, Identification problems and conditions, Recursive Models, Indirect Least squares, Two stage (2SLS) and Three Stage Least Squares (3SLS)

(15 hours)

Module –IV: Dynamic Econometric Model

Auto Regressive and Distributed Lag Models-Koyck Model, Partial Adjustment andAdaptive Expectations Model-Instrumental Variables- Problem of Auto- Correlation, Application- Almon Approach to Distributed Lag Models-Causality Test , Granger Test, Unit Root and Random walk

(15 hours)

Module -V: Econometric Applications

Economic Forecasting-Methods of Forecasting- Limitations-Estimation of Demand Equations-Engel Elasticity- Measurement of Short and Long Run Elasticities- Estimation of Production and Cost Functions

(15 hours)

REFERENCES

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Semester 4

International Financial System and Economic Policy
Public Economics II
Elective
Elective
Elective
Project / Dissertation-cum-Viva
Comprehensive Viva

Course No.	Course Code	Course Title	Credits	Teaching hours
15	20P1ECOT15	INTERNATIONAL FINANCIAL SYSTEM AND ECONOMIC POLICY	4	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Evaluates the evolution of different international monetary arrangements	PO1/PSO3	E	C	9
CO2	Understands the functioning of foreign exchange market and its global nature	PO1/PSO3	U	C	10
CO3	Critically evaluates the benefits and costs of financial globalization	PO1/PSO1	E	C	13
CO3	Examines the equilibration process in foreign exchange markets and exchange rate overshooting	PO1/PSO3	U	C	12
CO4	Explores the possibilities and dangers of crypto currencies and other inventions	PO3/PSO3	An	C	9
CO5	Understands the process of Balance of Payment adjustment	PO1/PSO3	U	C	10
CO6	Explores the problems of internal and external balance and policy effectiveness under different exchange rate regimes	PO1/PO3	An	C	11
CO7	Identifies the driving force behind and the effect of international factor movements on the source and host countries	PO1/PSO1	U	C	9
CO 8	Examines the causes behind international financial crises and explores solutions	PO1/PSO4	An	C	7
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates, Cr-create

MODULE 1: International Financial System

International Monetary system-The gold standard- Bretton Woods System and afterwards- present international monetary system- Optimum currency Area theories-Currency boards and its advantages and disadvantages- Hybrid systems

Foreign exchange market- structure and functions- spot and forward markets- hedging and speculation-demand and supply of foreign exchange – exchange rate determination-price quotation and volume quotation-nominal effective and real exchange rates- currency derivatives-futures , options and Swaps

International financial markets- Financial globalization and international bank lending- International bond markets-international stock markets- International financial linkages- Euro Currency markets- Crypto currencies- LIBOR- Quantitative easing

Theories of exchange rate determination- Mint parity theory-Purchasing power parity theory-Monetary approach- Portfolio balance approach-exchange rate overshooting

MODULE 2: Balance of Payments

Balance of payments –structure of BOPs- BOP adjustment mechanisms- elasticity approach-elasticity estimates- currency pass-through- J curve effect – Monetary and asset market approach to BOP

MOULE 3: Macro- economic policy in open economy

Income determination in an open economy and the trade multiplier process- foreign repercussion effect

Problem of internal balance and external balance- Swan –Salter Model- Assignment problem-Capital mobility and Mundell- Fleming Model- Effectiveness of monetary and fiscal policies under different degrees of capital mobility-combining monetary and fiscal policies

MODULE 4. International factor movements, financial crises and monetary reform

International labour movements- Portfolio investment and direct investments- Multi National Enterprises- causes for FDI- effect on host markets- transfer pricing- FDI in India

Experience under current international monetary system- Financial crises in East Asia and Euro Zone-Sub prime crisis- International debt problem- IBRD and IMF-Suggestions to reform international monetary and financial system.

REFERENCES

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Course No.	Course Code	Course Title	Credits	Teaching hours
16	**20P1ECOT16**	**PUBLIC ECONOMICS II**	**4**	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Cessions
CO1	Develops an understanding of various theories of Public Expenditure	PO5,PSO1, PSO7	U	C	9
CO2	Understands emerging trends in India's public expenditure	PO5, PSO1, PSO7	U	F	10
CO3	Understands the concept of budget and various stages in its preparation	PO5, PSO1, PSO7	U	C	12
CO3	Understands different theories of Public Debt	PO5, PSO1	U	C	10
CO4	Understands various methods in public debt management	PO5, PSO1	U	C	9
CO5	Evaluates the role of public sector enterprises in economic development including PPP	PO5, PSO1	E	C	12
CO6	Develops basic knowledge about pricing models of Public Sector Undertakings	PO5, PSO1	A	C	10
CO7	Develops an understanding of federal finance	PO5, PSO1	U	C	10
CO 8	Develops understanding regarding the changing role of local self-government and local finance	PO5, PS01	U	C	8
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates, Cr-create

Module -I: Public Expenditure

Theories of Public Expenditure – Wagner's Law – Wiseman- Peacock Hypothesis –Critical Limit Hypothesis-Structure and growth of Public expenditure of Centre and States - Developmental and non-developmental –Plan and Non Plan Expenditure, Principles of expenditure evaluation- Social cost - benefit analysis, Public expenditure decision making on Education in India. Regulation of Market – Collusion and Consumers' Welfare

(15 hours)

Module-II: Budgeting and Public Debt

A. Budget, Stages involved in the preparation, presentation and execution of government budget – Deficit concepts -Problem of fiscal deficit, Performance, Programme and Zero Based Budgeting – Corrective measures-FRBM Act-ERC.

B. Theories of public debt – Classical – Keynesian – Modern- Burden of Debt -Intergeneration equity – Buchanan Thesis – Growth and composition of public debt of the Central Govt. and State Govts- External debt of India. Management of Debt.

(25 hours)

Module- III: Public Enterprises

A.Public Sector and its Role in Economic Development– Changing attitudes towards Public enterprises – Privatization of PSUs'- Disinvestment of Indian PSUs– Experiences of other countries –Public Private Partnership(PPP) policy.

B. Pricing policies of PSU's- Peak load pricing - Administered Price Mechanism (APM) – Public Pricing and environmental policy.

(15 hours)

Module-IV: Fiscal Federalism

A. Theories of Multilevel Finance – Principles of Federal Finance –Indian Fiscal Federalism- Fiscal imbalances- Intergovernmental transfers - Efficiency basis – Equity arrangements –Major issues in Centre – state financial relations in India – Vertical and horizontal imbalances, Liberalization, economic reforms and Centre state relations in India

B. Finance commission and evaluation of its working. An evaluation of the current Finance Commission – Recent Trends -Criteria of devolution – Planning commission vs Finance commission – Modified Gadgil formula - Problem of Central loans to States in India C. Local Finance – Changing role of local self governments - State Finance Commission and financial resources of PRI, Problems of Local Finance.

(35 hours)

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Course No.	Course Code	Course Title	Credits	Teaching hours
E1	**20P3ECOEL1**	**ADVANCED ECONOMETRICS**	**4**	90

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understands how to apply Simultaneous regression models to statistical data	PO1, PO5/PSO7	U	C	13
CO2	Learning more about the estimation and testing of Indirect Least Squares, 2SLS, 3SLS	PO1/PSO5	E	C	12
CO3	Understands various issues related to regression techniques like Unit Root	PO1/PSO4	A	C	10
CO4	Acquires the skills to understand various ARIMA Models	PO5/PSO6	A	C	13
CO5	Understands Panel Data and estimation of panel data regression models	PO5/PSO7	U	C	10
CO6	Understanding the application of econometrics to basic economic concepts and evaluating its mathematical and economic impacts	PO1, PO5/PSO6	U	P	12
CO7	Learning the basic software packages like SPSS and STATA	PO1, PO5/PSO4	U	C	10
CO8	Understands Modelling Volatility and estimation of volatility using high frequency data	PO5/PSO5	A	P	10
TOTAL HOURS OF INSTRUCTION					90

Note : R- remembers, U-Understand, Ap-Apply, An-Analyse, E- Evaluates, Cr-create

Module 1 Simultaneous Equation Models

The Nature of Simultaneous Equation Models- Problems of Simultaneous Equation Model- Bias of OLS Estimators (Inconsistency and Simultaneity bias.) –The Identification Problem- Rules of Identification- Order and Rank Conditions – HausmanSpecification Test-Methods of Estimating Simultaneous Equation System- Structural, Reduced Form and Recursive Models -Estimation of Simultaneous Equation Model- Single Equation Model;Indirect Least Squares (ILS) – Instrumental Variable (IV); 2SLS, 3SLS, ML Methods

Module II- Time Series Econometrics

Stationarity, Basic Concepts- Unit Root,- Trend Stationary and Difference Stationary Process- Tests of Stationary- Dickey Fuller Test, Engle- Granger Test, Random Walk Model-

Co-integration- Economic Application -Approaches to Economic Forecasting- AR, MR and ARIMA Modelling of Time Series Data- The Box Jenkin‘sMethodology- Vector Auto Regression- Problems with VAR Modelling- Applications

Module III- Panel data Regression Models

Panel Data- Estimation of Panel Data Regression Models Using the Fixed Effect Model, and the Random Effect Approach-Haussmann Test

Module IV- Applications of Econometrics and Statistical Packages

Discriminate and Principal Component Analysis, Econometric Applications in India, Computer Software Operating System- Application Software and Packages- Data Entry and Statistical Analysis- using SPSS & STATA

Module V – Models of volatility

Modelling volatility, ARCH, GARCH and various versions of GARCH. Long-memory and stochastic volatility models, Recent developments in volatility estimation using high frequency data

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Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E2	**20P3ECOEL2**	**ENVIRONMENTAL ECONOMICS**	**4**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	To understand the basics of environmental economics and to know the linkage between economics and environment	PO1/PSO6	U	C	12
CO2	To gain a theoretical understanding about the foundations of environmental economics	PO5/PSO4	U	C	10
CO3	Apply the theoretical knowledge about the environmental economics into practical situations	PO1/PSO7	A	C	12
CO3	To understand and analyse the mathematical valuation of environmental values and various pricing methods to assess its impact	PO5/PSO5	E	C	13
CO4	To understand about the environmental accounting and its integration with the system of national accounts	PO4/PSO2	U	C	11
CO5	To analyse the contribution of environment to the GNP of the country and to know the importance of sustainable development as a goal for the better world	PO1/PSO3	U	C	13
CO6	To identify,evaluate and scrutinise the environmental policies and to analyse the recent trends	PO1/PSO7	E	C	10
CO7	To know about the Indian context and its specific policies for environment protection	PO1/PSO7	A	C	9
TOTAL HOURS OF INSTRUCTION					90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1. Introduction to Environment and Economy

Scope and Definitions of Environmental Economics, Environmental Economics Vs. Traditional Economics- Environment – economy interaction - Material balance model - law of thermodynamics and entropy – Environmental input- output analysis – The Environmental Kuznets Curve Hypothesis – ecological foot print- concept of sustainable development.

(15 hours)

Module 2. Fundamental theories of environmental economics

Pareto Optimality and competitive equilibrium-Externality and market inefficiency – Externality as missing markets-property rights and externalities – environmental demand theory- Olson‘s theory

of Collective Action - Common property (pool) resources and environmental quality as a public good – Hardin's thesis of the Tragedy of commons.

(25 hours)

Module 3. Measurement of Environmental Values

Environmental Valuation- Total Economic value-use value, non-use value, option value, bequest value – Weak Complimentarity-Production function based Techniques - Travel cost method - Hedonic Price Method (Hedonic Property Prices method), stated preference methods: Contingent Valuation Method, Choice modelling (Choice experiments and environmental valuation)- Benefits Transfer method, Environmental Accounting- Integration of Environmental Accounts with System of National Accounts - Green GNP–concept of Environmental Impact Assessment (EIA) –Social cost benefit analysis.

(30 hours)

Module 4. Theory of Environmental Policy

Treating environment externalities – Polluter pay principle – Pigouvian taxes and subsidies – Marketable pollution permits –mixed instruments (the charges and standards approach) – taxable permits and tradable permits- international carbon tax – Eco –Labelling-Coase theorem and bargaining- The need for an environmental policy– domestic environmental policy- the Indian experience.

(20 hours)

REFERENCES:

1. Rabindra N Bhattacharya 2007, Environmental Economics an Indian Perspective, OUP, New Delhi.Ch.1, 4

2. Katar Singh and Anil Shishodia, 2007, Environmental Economics Theory and Practice2, Sage Publications, New Delhi. Ch. 1, 2, 3, 4, 5 and 6

3. Charles D Kolstad, 2006, Environmental Economics, OUP, New York. Ch.1, 3 to 7 and 15

4. Daniel D Chiras, 1998, Environmental Science, 5th edn., Wadsworth Publishing Company, New York. Ch. 5 to 8

5. MatthewEdel, 1973, Economies and the Environment, Prentice Hall, New Jessey, Ch.1.

6. Nirmal Chandra Sahu and AnithaKumariChoundhury, 2005, Dimensions of Environmental and Ecological Economics, University Press, Hyderabad. Articles. 1, 2, 4, 5, 14, 17 to 19. 7.

7. PaulAekins, 2000, Economic Growth and Environmental Sustainability, Rroutledge, London. Ch.2, 5 and 6.

8. Roger Pearman , et al., 1999, Natural Resources and Environmental Economics, Pearson Education, Limited Edin. Borough Gate, U.K. Ch. 1 and 4 to 6, 11, 12, 14 to 17.

9. Sharma P.D, 2002-03), Ecology and Environment, Rastogi Publications, Meerut. Ch. 10.

10. World Development Report 2003, Sustainable Development in a Dynamic World.

11. Nirmal Chandra Sahu and AnithaKumari Choundhury, 2005, Dimensions of Environmental and Ecological Economics, University Press, Hyderabad. Articles. 8,9 and 15.

12. Mary Ann Curran, 1996, Environmental life Cycle Assessment, MC. Graw Hill, New York. Ch.1.

13. Thomas and Callan, 2007, Environmental Economics, Thomas South-Western. Ch.6 and 8.

14. Ulganathan Sanker, 2009, Environmental Economics, OUP, New Delhi. Ch. 8 and 9.

15. Lester R Brown, 2003, Eco- Economy, Orient Longman, Hyderabad. Ch.11

16. Paul Aekins, 2000, Economic Growth and Environmental Sustainability, Rroutledge, London. Ch.3 and 8.

17. Thomas and Callan, 2007, Environmental Economics, Thomas South-Western. Ch. 6.

18. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings, W.W. Norton, 5th edition, 2005.

19. Maureen L. Cropper and Wallace E. Oates, 1992, ―Environmental Economics: A Survey, Journal of Economic Literature, Volume 30:675-740.

20. Fisher, A.C.: Resource and Environmental Economics, Cambridge University Press, 1981

21. Baumol, William J. and Wallace E. Oates: The Theory of Environmental Policy, Cambridge University Press, 1988.

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E3	**20P3ECOEL3**	**MONETARY ECONOMICS**	**4**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Develop understanding of the theories that relate to the existence of money, explaining why it is demanded by individuals	PO1,PSO1	U	C	5
CO2	Enables the students to understand basic concepts regarding money and the functioning of pecuniary economy	PO1/PSO1	U	C	5
CO3	Capacitates the students to have a thorough understanding of various theoretical approaches to the determinants and measures of money supply and its role in causing business cycles	PO1/PSO1	U	C	20
CO4	Gives the students an insights into the different schools of thought regarding the demand for money	PO1/PSO1	A	C	10
CO5	Provide students an insight into interest rate differentials	PO1/PSO1	A	C	10
CO6	Gives the students awareness of the monetary policy formulations, its targets and its objectives and to create an interest in the recent monetary reforms initiated in India	PO1/PSO1	U	C	15
CO7	Discuss the merits and disadvantages of different monetary policies used by Central Banks	PO1/PSO1	U	C	10
CO8	Describe and explain the main channels of the monetary transmission mechanism, through which monetary policy can have real effects on the economy	PO1/PSO1	U	C	15
TOTAL HOURS OF INSTRUCTION					90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1. Concepts of Money

Money and near money (Basic concepts), classification of money-the static and dynamic functions of money- liquidity theory of money: the Radcliffe committee - the Gurley-Shaw – Newlyn, Concept of neutrality of money.

(15 hours)

Module 2. Supply of Money

Financial Intermediation- A mechanic model of bank deposit determination (High powered money and money multiplier / money multiplier theory – Mechanical approach)- behavioural model of money supply determination-, Money supply determination in an open economy- A demand determined view of the money supply process- methods of monetary control - measures of money supply in India- monetary business cycle theory of Hawtrey and Hayek.

(20 hours)

Module 3. Demand for Money

Theories of demand for money-classical approach- Fishers' equation, neo classical approach – Cambridge versions (Marshall, Pigou, Robertson), Keynes' liquidity preference approach, transaction, precautionary and speculative demand for money – aggregate demand for money, Liquidity trap - Friedman's restatement-Post Keynesian theories of the demand for money-James Tobin and William J. Baumol- classical dichotomy- real balance effect – Patinkin's integration of value theory and monetary theory. FCNR- currency swaps

Module 4. Term Structure of Interest Rates

Dispersion (interest rate differentials) of interest rates: sources (reasons) - Yield curve- theories of term structure of interest rates: -segmented approach, expectations approach, and liquidity premium approach – monetary equilibrium criteria (Wicksell).

(20 hours)

Module 5. Monetary Policy

Monetary policy-Goals (objectives), targets, indicators and instruments of monetary policy- Transmission mechanism of monetary policy- classical, Keynesian, Friedman - rule versus discretion- lags in monetary policy -monetary reforms in India.

(15 hours)

REFERENCES

1. Suraj B. Gupta, Monetary Economics, S Chand & Co Delhi

2. L M Bhole, Financial Institutions and Market

3. V M Avadhani, Studies in Indian Financial System

4. Levacic and Rebmann, Macro Economics, Macmillan

5. Laidler David E, The Demand for money: Theories and Evidence

6. S C Patnaik, Supply and Demand for money: An equilibrium Analysis

7. D G Pierce and D M Shaw, Monetary Economics

8. Don Patinkin, Money Interest and Prices

9. Myron B. Slovin and Marie Elisabeth Sushka- Money and Economic Activity, Lexington Books

10. Lewis, M.K. and P.D. Mizen, Monetary Economics. (Oxford; New York: Oxford University Press, 2000)

11. Goodhart, C.A.E. Money, Information and Uncertainty. (London: Macmillan, (1989).

12. Michael R Bayes and Denni S W Jansen, Money, Banking and Financial Markets All India Traveller Book Seller, New Delhi.

13. Mervyn K. Levis and Paul D. Mizen, Monetary Economics, OUP

14. Rakesh Mohan, Growth with Financial Stability, OUP

15. H R Suneja- Monetary Theory and Practice, Himalaya Publishing House

16. Shyamal Roy –Macroeconomic Policy Environment,

17. Thomas F Cargill, Money, The Financial System and Monetary Policy, Prentice Hall

18. Charles N. Henning, William Pigott and Robert Haney Scott, Financial Markets and The Economy, Prentice Hall, 1974.

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E4	20P3ECOEL4	CAPITAL MARKET (Elective)	3	90

	Course Outcome	POs/PSO	CL	KC	Class Sessions
CO1	Understand the basics of savings and investment, capital market instruments and major investment avenues.	PO1, PSO1	U	C	15
CO2	Understand the origin and development of capital market and its influence on Indian economy.	PO1, PO2, PSO2	U	C	10
CO3	Attain familiarity with concepts and terms used in the new issue market such as IPO, FPO, rights issue and book building.	PO2, PSO6	U	C	12
CO4	Understand the functioning of stock exchanges and the stock market indices in India.	PO2, PSO2	U	C	10
CO5	Gather better insight on the interrelationship between interest rate and investment.	PO5, PSO2	A	C	8
CO6	Understand the pricing and hedging of options, futures and other contingent claims and their role in risk management.	PO1, PSO2	U	F	10
CO7	Understand the principles and functions of portfolio management.	PO1, PSO1, PSO3	U	C	10
CO8	Gain knowledge about valuation of securities, earning ratios and financial statement analysis.	PO1, PSO2	A	C	15

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module I

Need for Saving and Investment – Characteristics of Investments – Major investment avenues in capital market – sources of fund to raise long term capital – Investment versus Speculation – Individual Investors – Institutional Investors – Foreign Institutional Investors - Risks of Investment and Return on Investment (20 Hours)

Module II

Capital Market – Origin and Development – Functions – Capital market instruments – New issue market – IPO – FPO – Book Building process – Listing – Rights issue – Trading processes – Online Trading – Securities Market in India – Role of S E B I – Stock Exchanges in India – Functions - N S E – B S E – MCX - Stock Market Indices – Dematerialization of securities - Derivatives - Futures and Options – Exchange Traded Funds – Real Estate Investment Trust – IRF-Depositories: N S D L – C D S L – Credit Rating Agencies.

(30 Hours)

Module III

Interest rates and investment – Role of Interest rates in determining the value of security – Investment and Time Value of Money – Net Present Value – Discounted Cash Flows – Practical Applications – Bond Market – Yield Curve Analysis.

(20 Hours)

Module IV

Portfolio management: Basic principles, importance, functions – Equity valuation – Value concepts – Earnings Ratios.Financial statement analysis– Balance sheet of a company.

(20 Hours)

REFERENCES:

1. Prasanna Chandra – Investment Analysis and Portfolio Management – Tata McGraw-Hill
2. Fisher and Jordan – Security Analysis and Portfolio Management – Prentice - Hall
3. Bhole L M – Financial Institutions and Markets - Tata McGraw-Hill
4. Barua, RegunathanandVarma – Portfolio Management - Tata McGraw-Hill
5. Prasanna Chandra – Financial Management, Theory and Practice - Tata McGraw-Hill
6. Avadhani V A – Securities Markets – Himalaya Publishing House
7. Gupta L C – Rates of Return – Oxford University Press
8. Khan M Y – Indian Financial System - Tata McGraw-Hill
9. Yasaswy N J – Equity Investment - Tata McGraw-Hill
10. William J Baumol – Stock Market and Economic Efficiency
11. Thomas, Susan (Ed.) Derivatives Markets in India - Tata McGraw-Hill
12. RBI Bulletin, CMIE Reports, Prime Data Base, sebi.com, nseindia.com, bseindia.com

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E5	**20P3ECOEL5**	**ECONOMICS OF SOCIAL SECTOR**	**4**	**90**

Course Rationale

To impart necessary theoretical knowledge, which serves as a foundation for analysing the dynamics of social sector in the process of economic development.

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Analyses the role of human resource in economic development	PO1/PSO2	A	C	12
CO2	Compares the role of physical and human capital in economic- development	PO1/PSO1	U	C	13
CO3	Evaluates the different types of cost and benefits of education	PO1/PSO6	E	C	12
CO4	Appraises the effects of unemployment and brain drain on the economy in the present and future	PO4/PSO2	E	C	12
CO5	Evaluates the role of health in the socio-economic development of a nation	PO1/PSO1	U	C	10
CO6	Compares education and health as consumption and investment goods view points	PO1/PO6	U	C	10
CO7	Examines the causes and consequences of poverty and malnutrition	PO5/PSO2	U	C	12
CO8	Appraises the issues in the health care sector such as equity efficiency, pricing subsidies etc.	PO5/PSO2	E	C	9
TOTAL HOURS OF INSTRUCTION					90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1: Introduction to Social Sector

Social sector – meaning and components - Role in economic development – Human resource development approach Vs Human development approach

Definition and scope of Economics of Education - Education as Consumption and Investment goods – Theoretical Framework: Contributions of Schultz, Becker, Roemer and Barro - Human capital -

the concept - Components of Human capital - Human Capital vs. Physical Capital - Human capital and human development.

(20 hours)

Module 2: Costs and Benefits of Education

Cost of Education – Expenditure on Education – Public expenditure on education - Private Costs and Social Costs - Direct and Indirect / opportunity costs - Benefits of Education – Direct and Indirect Benefits - Private and Social Benefits - Problems in the Measurement of Costs and Benefits - Cost-Benefit Analysis in Education - Education, Employment and Income - Contribution of Education to economic growth - Education, Poverty and Income Distribution - Educational Planning and the problem of educated unemployment and brain drain - Role of financing in the development of education - Financing of education in India.

(30 hours)

Module 3: Introduction to Economics of Health

Definition and scope of Economics of Health - The concept of health and health care - Health as Consumption and an Investment goods - The role of health in economic development – Comparison of Education and Health - Health as human capital - Determinants of Health – Poverty and Malnutrition - Economic Dimensions of Health Care – Demand and Supply of Health Care.

(20 hours)

Module 4: Financing and Institutional Issues in Health Care

Resource Mobilisation and Utilisation of health care in India - Pricing and subsidies to Health sector - Equity and Efficiency Effects of health care financing - Health Care and Resource Constraints - Inequalities in Health and health care in India - Institutional Issues in Health Care Delivery.

(30 hours)

REFERENCES

1. Baru, R.V., -Private Health Care in India
2. Blaug, Mark (1972) Introduction to Economics of Education. Penguin, London.
3. Becker, G.S.(1974) Human Capital. 2nd Edn., NBER, New York
4. Berman, P and M.E.Khan (1989) Paying for India's Health Care. Sage Publications. New Delhi.
5. Cohn, E and T.Gaske (1989) Economics of Education, Pergamon Press, London.
6. George Pascharopoulos (1985)- Education for Development, Oxford University press, N.Y
7. Henderson, J.W, -Health economics and Policy
8. Jaganathmohanty- Modern Trends in Education
9. Klarman, H.E. (1965) Economics of Health, Columbia University Press, New York.

10. Panchamukhi, P.R.(1980) Economics of Health: A Trend Report, ICSSR Survey, Allied, New Delhi.

11. Tilak. J.E.G.(1989) Economics of Inequality in Education, Sage, New Delhi.

12. Sabu, P.J. and Raju, K.V. (2015): Higher Education in India – Towards Structural Transformation, Serials Publications, New Delhi.

13. Schultz, T.W- Economic value of education

14. World Bank (1983) The World Development Report: Investing in Health. Oxford University Press, New York

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E6	**20P3ECOEL6**	**INDUSTRIAL ECONOMICS**	**4**	**90**

PREAMBLE

In the contemporary world with globalization and liberalization more and more attention is being given to industry. This course intends to provide knowledge to the students on the basic issues such as productivity, efficiency, capacity utilization and debates involved in the industrial development of India. The objective is to provide a thorough knowledge about the economics of industry in a cogent and analytical manner, particularly in the Indian context.

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Understand the concept and organisation of a firm	PO1/PSO1	U	C	10
CO2	Analyse the objectives and behaviour of the firm	PO1/PSO1	U	C	5
CO3	Recognise and explain the basic determinants of market structure	PO1/PSO1	A	C	10
CO4	Understand the theories of industrial location	PO1/PSO1	U	C	10
CO5	Acquire knowledge about the growth of firm and its profitability, productivity and efficiency	PO1/PSO1	A	C	10
CO6	Understand the constraints on growth of the firm.	PO1/PSO1	U	C	10
CO7	Helps to understand the concept of industrial finance and financial statement	PO1/PSO1	A	C	10
CO8	Analyse and understand Indian industrial growth , industrial policies and recent trends in industrial growth	PO1/PSO2	U	C	25
TOTAL HOURS OF INSTRUCTION					90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1: Framework and Problems of Industrial Economics

Concept and organization of a firm — ownership, control and objectives of the firm; Passive andactive behaviour of the firm. (15 Hours)

Module 2: Market Structure

Sellers' concentration; Product differentiation; Entry conditions; Economies of scale; Market structure and profitability; Market structure and innovation; Theories of industrial location — Weber and Sargent Florence; Factors affecting location (20 Hours)

Module 3: Market Performance and Industrial Finance

Growth of the firm — Size and growth of a firm; Growth and profitability of the firm; Constraints on growth; Productivity, efficiency and capacity utilization — Concept and measurement, IndianSituation, Financial statement — Balance sheet, Profit and loss account; assessment of financial soundness, ratio analysis (30 Hours)

Module 4: Indian Industrial Growth and Pattern

Classification of industries; Industrial policy in India — Role of Public and private sectors; Recent trends in Indian industrial growth; MNCs and transfer of technology; Liberalization and privatization; Regional industrial growth in India; Industrial economic concentration and remedial measures (25 Hours)

BASIC READING LIST

1. Ahluwalia, I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi.
3. Cherunilam, F. (1994), Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai
4. Desai, B. (1999), Industrial Economy in India (3rd Edition), Himalaya Publishing House, Mumbai.
5. Divine, P.J. and R.M. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6. Government of India, Economic Survey (Annual)
7. Hay, D. and D.J. Morris (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
8. Kuchhal, S.C. (1980), Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
9. Reserve Bank of India, Report on Currency and Finance (Annual)
10. Singh, A. and A.N. Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay
11. Gupta, L.C. (1969), The Changing Structure of Industrial Finance in India, Oxford University Press, New Delhi.
12. Khan, M.Y. (1981), Indian Financial Systems, Allied Publishers, New Delhi.

13. Sen, R. and B. Chatterjee (2001), Indian Economy: Agenda for the 21st Century (Essays in honour of Professor P.R. Brahmananda), Deep and Deep Publications Pvt. Ltd., New Delhi.
14. Brahmananda, P.R. and V.R. Panchamukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
15. Chakravarty, S. (1987), Development Planning : The Indian Experience, Oxford University Press, New Delhi.
16. Datta, B. (1992), Indian Planning at the Crossroads, Oxford University Press, New Delhi.
17. Dhameeja, N. and K.S. Sastry (1998), Privatization : Theory and Practice, A.H. Wheeler, New Delhi.
18. Jalan, B. (1996), India's Economic Policy, Viking, New Delhi.
19. Joshi, V. and I.M.D. Little (1999), India : Macro Economics and Political Economy : 1964-1991, Oxford University Press, New Delhi.
20. Kelkar, V.L. and V.V. Bhanoji Rao (Eds.) (1996), India Development Policy Imperatives, Tata McGraw Hill, New Delhi.
21. Rama Murti, R. and R. Vernan (Eds.) (1991), Privatization and Control of State-owned Enterprises, The World Bank, Washington.
22. Sandesara, J.C. (1992), Industrial Policy and Planning — 1947-1991 : Tendencies, Interpretations and Issues, Sage Publications, India Pvt. Ltd., New Delhi.
23. Bhagwati J. and P. Desai (1972), India: Planning for Industrialization, Oxford University Press, London.

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E7	20P3ECOEL7	MATHEMATICAL ECONOMICS	4	90

	Course Outcome	POs/PSOs	CL	KC	Class Sessions
CO1	Helps understand the role of Mathematics in economic analysis	PO1/PSO 1	U	C	8
CO2	Students will be able to identify, explain, and use Mathematical concepts, theories,functions in economic analysis.	PO1/PSO 1	A	C	20
CO3	Students will acquire the knowledge of mathematics and Economics in a variety of contexts thereby providing the foundation for success in their studies and careers.	PO1/PSO 1	A	C	15
CO4	Students will develop the skills to measure and analyze statistical data in order to draw conclusions about various economic problems.	PO1/PSO 1	A	C	25
CO5	Students will develop the necessary investigative skills for conducting original economic research and participating effectively in project teams.	PO1/PSO 1	A	C	25
CO6	Students will acquire the skills to deliver effective presentations in which they combine visual communication design with oral arguments and/or the written word.	PO1/PSO 1	A	C	15
TOTAL HOURS OF INSTRUCTION					108

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1: The theory of consumer behaviour

Utility function-Indifference Curves-commodity substitution-maximisation of utility. Demand function-compensated demand function-demand curves- price, income and cross elasticities of demand-the Slutsky equation: substitution and income effects. Linear expenditure system-separable and additive utility functions-homogeneous and homothetic utility functions- indirect utility function and duality in consumption. Theory of revealed preference-strong axiom – substitution effect-composite commodities- consumer surplus.

(20 Hours)

Module 2: The theory of the firm

Production function-product curve- Isoquants -elasticity of substitution-optimizing behaviour-constrained output maximisation-constrained cost minimisation-profit maximisation. Cost function-short run cost function-long run cost function-joint products-constrained revenue maximisation-profit maximisation. Homogeneous Function –Definition and properties – Properties of Linearly Homogeneous Function – Cobb – Doubles Production Function – Expansion Path for Cobb-Douglas Function. Elasticity of Substitution -elasticity of linearly Homogenous Functions – C.E.S. and VES production functions—Translog forms-Euler's Theorem—-Derivation of cost function from production function-Modern Approach to the Theory of Cost, Shephard's Lemma Adding Up Theorem- Production analysis of multi-product firm.

(20 Hours)

Unit- 3: Market Equilibrium

Demand function-market demand -producer demand-Supply functions: very short run- short run and long run. Commodity-market equilibrium: short run equilibrium-long run equilibrium-factor market equilibrium: demand functions, supply functions and market equilibrium- the existence and uniqueness of equilibrium- the stability of equilibrium: static and dynamic-dynamic equilibrium with lagged adjustment: cob-web theorem. Monopoly-AR and MR- Profit maximisation: cost function, profit maximisation; production function- price discrimination: market and perfect discrimination- the multi-plant monopolist-the multi-product monopolist-revenue maximizing monopolist-monopsony. Duopoly and oligopoly: homogeneous product: the Cournot and the Stackelberg solutions- duopoly and oligopoly: differentiated products-market -shares solution and kinked demand curve solutions.

Theory of games: Two-person zero-sum game, pure and mixed strategy, game with and without saddle point, Nash equilibrium- Game theory and duopoly problems-solution to games with mixed strategy: the algebraic method and graphical solution to obtain value of the game.

(30 Hours)

Unit- 4: Multi-market equilibrium and Welfare economics

Equilibrium of the the consumer, two commodity exchange using Edgeworth box, production and exchange: equilibrium of the consumer and the firm. Walras law and multi-market equilibrium. Pareto optimality: Pareto optimality for consumption and production-the efficiency of perfect competition- the efficiency of imperfect competition in consumption, commodity and markets. Social welfare functions- the Arrow impossibility theorem-the theory of second best.

(20 Hours)

REFERENCES

1. Henderson, J. M. and R.E. Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

2. Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, Mc Graw Hill, New York.

3. R.G.D. Allen, Mathematical Economics, MacMillan, London

4. Lancaster, V. (1965): Mathematical Economics, Rand McNally College Pub5) Silberberg, E. (1990): The Structure of Economics – A Mathematical Analysis, McGraw Hill.

Supplementary Reading

1. Brajesh Kumar (2010): Modern Microeconomics, Global Professional Publishing.
2. Thomas J. Nechyba (2017): Microeconomics: An Intuitive Approach with Calculus
3. Hugh Gravelle and Ray Rees (2010): Microeconomics, 4 th Edition, Pearson Education Limited 2 nd Edition, Cengage Learning.
4. Dowling.T.E., Introduction to Mathematical Economics, McGraw Hill.
5. Koutsoyiannis, A. (2011), Modern Microeconomics, Macmillan Press, London.
6. Hal R. Varian (2014): Intermediate Microeconomics with Calculus,1 st Edition, W. W. Norton & Company
7. Jeffrey M. Perloff (2014): Microeconomics with Calculus, 3 rd Edition, Pearson Education Limited.

Course No.	Course Code	Elective Course Title	Credits	Teaching hours
E8	20P3ECOEL8	COMPUTER APPLICATIONS IN ECONOMIC ANALYSIS	4	90

	Course Outcome	POs/PSOs	CL	KC	Class Sessions
CO 1	Introduces students to various statistical and econometrics softwares for data analysis	PO1, PO3, PSO3	A	C, P	15
CO 2	Develops the skills to analyse data with the help of statistical softwares	PO1, PO3, PSO3	A	C, P	15
CO 3	Enables the students to choose appropriate tools for data analysis.	PO1, PO3, PSO3	A	C, P	15
CO 4	Enhances skillful presentation and interpretation of the analysed data with effective tools	PO1, PO3,	A	C, P	12
CO 5	Formulates research hypotheses, to choose research methods and test hypotheses	PO1, PO3, PSO4	A	C, P	15
CO 6	Able to apply methodology of economics to in complex real world situations and to make right choices for oneself and the society	PO1, PO3, PSO4	A	C, P	18
	TOTAL HOURS OF INSTRUCTION				90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module 1 :

Overview of computer – Basic operating instructions – Describing the data to Gretl and Eviews software packages – SPSS – Reading the data – Computing statistics –Displaying the data – Data transformations and creating new series – Graphing the data.

(20 hours)

Module 2 :

Dealing with Data The tools – Missing data – Software format – Error messages –Familiarity with different data base such as: PROWESS, Capital online, HBS, NationalSample Survey Organisation reports, Census data – National Health and Family Welfarereports.

(20 hours)

Module 3 :

GraphicsDisplaying graphs on the screen – Saving and operating graphs – Printing graphs – Labelling graphs – Overlay (two scale) graphs – Multiple graphs on a page.

(15 hours)

Module 4 :

Scalars, Matrices and Functions Working with scalars. Linear RegressionAnnotated regression output – Extensions to linear regression; A framework –Heteroscedasticity – Serial correlation – Hypothesis Testing, Non Linear Estimation General principles and problems.

(20 hours)

Module 5:

Introduction to Forecasting Introduction – Forecast performance – Univariate forecasting – Box-Jenkins models –ARIMA procedures. Vector auto regressions Setting up a VAR . Cross Section and Panel Data Probit and Logit models.

(15 hours)

REFERENCES

01. Applied Econometric Time Series (1995), John Wiley & Sons, New York.

02. Box, G.E.P. and Jenkins, G.M. (1976), Time series Analysis, Forecasting and Control, Holden Day, San Francisco.

03. Hamilton. J. (1994), Time Series Analysis, Princeton University, Princeton.

Course No	Course Code	Course Title	Credits	Teaching hours
E9	**20P3ECOEL9**	**AGRICULTURAL ECONOMICS**	**3**	**90**

	COURSE OUTCOME	POs/PSOs	CL	KC	Class Sessions
CO1	Explores interdependence between agriculture and industry and role of agriculture in economic development	PO1/PSO1	A	C	9
CO2	Evaluates the land reforms and cropping pattern in India	PO1/PSO1	E	C	12
CO3	Evaluates the agricultural credit and marketing arrangements in India	PO1/PSO1	E	C	14
CO4	Examines the problem of food security in India and the importance of PDS	PO1/PSO1	A	C	13
CO5	Examines the Agricultural price policy in India	PO1/PSO1	A	C	10
CO6	Evaluates the role of NABARD in agricultural finance	PO1/PSO1	E	C	11
CO7	Understands the principles and problems of farm management	PO1/PSO1	U	C	10
CO 8	Examines the dynamic changes in agricultural sector	PO1/PSO2	A	C	11
TOTAL HOURS OF INSTRUCTION					90

Note: R-Remember, U-understand, Ap-Apply, An-Analyse, E-Evaluate, Cr-create

Module I

Agriculture and Economic Development - Nature and scope of agricultural economics- Role of agriculture in economic development - interdependence of agriculture and industry – Agricultural development, poverty and environment.

(15 hrs)

Module II

Land Reforms and Land Policy Cropping pattern - factors affecting cropping pattern. Land reforms in India - Green Revolution - experience in Mexico and India - Farm size and productivity debate in India -mechanization in Indian agriculture

(12 hrs)

Module III:

Agricultural Marketing and Credit Agricultural marketing in India - regulated markets and cooperative marketing. Marketed and marketable surplus - food security in India – PDS - Revamped PDS and targeted PDS - Need and objectives of agricultural price policy. Agricultural financing- rural savings and capital formation - Sources of agricultural credit – Institutional and non-institutional- Role of NABARD (18 hrs)

Module IV

Agricultural Production and Productivity Farm management – Principles - Farm management decisions - principles of factor substitution - cost principles - opportunity cost principle - principles of comparative advantage -limitations of farm management. Agricultural production functions - Factor-product relationships, product-product relationships, Factor-factor relationships - supply response models (Cobweb and Nerlove models).

(20 hrs)

Module V

Growth in India Recent trends in agricultural growth - Inter-regional variations in output and productivity, Shifts in cropping pattern; supply of inputs; irrigation, power, seed and fertilizers and the role of subsidies. Role and need for agro-based industries. Strategy of agricultural development and technological progress- Indigenous & Bio-technological practices and growth potential- Globalisation and problems and prospects of Indian agriculture; Impact of WTO on Indian agriculture. (25 hrs)

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4. Government of India, Economic Survey (Annual), New Delhi.
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6. Kahlon, A.S. and Tyagi D.S. (1983), Agriculture Price Policy in India, Allied Publishers, New
7. Delhi. 7. Reserve Bank of India, Report on Currency and Finance (Annual), Mumbai.
8. Rudra, A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
9. Saini, G.R. (1979), Farm Size, Resource Use Efficiency and Income Distribution, Allied New Delhi.
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PROJECT / DISSERTATION (20P4ECOPJ)-CUM-VIVA(20P4ECOCV)

(Guidelines)

DISSERTATION FORMAT

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

General Guidelines

1. Selection of a Topic
2. Pilot Survey, if needed
3. Significance of the Study
4. Review of Literature
5. Research Gap (Optional)
6. Conceptual Framework – Conceptualization & Operationalization (precise and specific meaning of the terms and concepts)
7. Theoretical framework (Optional)
8. Formulation of Research Questions /Issues
9. Research objectives
10. Hypotheses (Optional)
11. Coverage (Universe/ Sample & period of study)
12. Data source (Primary/Secondary)
13. Tools of analysis(Analytical Framework)
14. Social Relevance of the study
15. Limitations of the study
16. Chapter outlines
17. Introductory chapter
18. Result Chapter(s)
19. Conclusion Chapter
20. Appendices
21. Bibliography /References &Bibliography

Structure of the Report

1.1 Title page 1 Cover Page

a. Title page

b. Title of the project

c. Name of the candidate

d. Name and designation of the supervisor.

e. Degree for which project is submitted.

f. Name of the College

g. Month and year the project is presented

h. Declaration of the student &supervisor

1.2Preface

1.3 Table of contents

a. List of Tables

b. List of Figures

c. Glossary.

d. List of abbreviations

e. Acknowledgment

1.4. Abstract / Executive Summary (One Page)

1.5. The Main Test

a. Introductory Chapters: Items 3 to 16 mentioned above

b. Other Chapters: Analysis, Results & Interpretation

c. Conclusion Chapter: Conclusions, Recommendations & Summary

1.6. End Notes (After each chapter)

1.7. Bibliography or References (At the end of the thesis)

1.8. Appendices

a. Questionnaire

b. Interview schedule

c. Observation schedule (optional)

d. Coding frame (Optional)

e. Letters sent to sample members (optional)

f. Any other

Length of the Project

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