FAROOK COLLEGE (AUTONOMOUS)

Farook College PO, Kozhikode-673632

P.G Programme in Economics

Under

Choice Based Credit Semester System

SYLLABUS

(2022 Admission Onwards)

Prepared By:

Board of Studies in Economics

Farook College (Autonomous)

CERTIFICATE

I hereby certify that the documents attached are the bona fide copies of the syllabus of M.A. Economics programme to be effective from 2022 admission onwards.

Date: Principal
Place: Farook College

CONTENTS

PREAMBLE

The Master of Arts (M.A) in Economics is a two-year full-time programme, comprising of four semesters. Economics is increasingly becoming an applied science and assumes greater importance in today's highly globalised world. The subject has emerged as an important one due to its wide applications in industry and policy making. The requirements for economics graduates and post graduates who are equipped with strong theoretical background, analytical tools and decision-making skills have been increasing during last some decades, especially after India introduced new economic reforms. The reforms aimed to liberalise and globalise Indian economy by allowing domestic and foreign private investors to invest in new areas where they were not permitted to enter earlier. With private investors setting up new enterprises, especially in service sectors like banking and insurance, IT and IT related services, investment firms and mutual funds etc..., the job opportunities for the graduates and post graduates in Economics, who possess core competencies like analytical skills, managerial expertise and economic forecasting have increased. In fact, the service industry is in huge demand for the economic graduates who possess sound knowledge as well as practical expertise in economic theory, statistical analysis, and econometric modelling together with presentation and report writing skills.

Therefore, to meet the human resource requirements in policy making as well as in industry, the Syllabus of M.A Economics programme of Farook has been modified and updated with the latest developments in economic theories, methods and their applications without missing core contents. The curriculum follows a balanced approach with a focus on both theoretical and applied economics. The curriculum is designed as per the Regulation of University of Calicut. The syllabus is designed after making a thorough review of existing curriculum of M.A Economics programme of Farook College prepared in 2019 and it is prepared in line with the new Curriculum of M.A Economics programme of University of Calicut under Choice Based Credit Semester System (CBCSS). The curriculum mainly consists of revised contents, evaluation schemes, model question papers, and a format to prepare the dissertation.

The revised syllabus is an outcome of several meetings of board of studies and consultation with various experts in specific subjects from other colleges and universities, especially members of P.G Board of Studies, University of Calicut. Their valuable comments and suggestions have been incorporated in the syllabus. I express my gratitude to members of board of studies and other experts.

P. Mohammed Rasheed
Chairman, Board of Studies in Economics (PG)

MEMBERS OF BOARD OF STUDIES

Chairman

1. **Mr. P. Muhammed Rasheed**
   Asst. Professor & Head
   Dept. of Economics, Farook College(Autonomous)
   9496351997,rasheedchalavara@gmail.com

Members

1. **Dr.Shyjan Davis**
   Associate Professor (On Deputation)
   John Mathai Centre, University of Calicut,
   9400370320, shyjandavis@gmail.com
2. **Dr. Shaheed Ramzan**
   Associate Professor and Head
   Govt. Arts and Science College, Calicut
   9745866606, cpsramzan@gmail.com
3. **Dr.Y.C.Ibrahim**
   Associate Professor &Head
   Dept. of Economics, Govt.College, Kodencherry
   9446156983, ycibrahim@gmail.com
4. **Mr.Rohit Nair**
   Project Manager
   Global Workforce Planning, Ernst & Young, Info Park Kochi
   999515345, rohitvijaynair@gmail.com
5. **Dr. Abdul Jabbar A.T.**
   Asst. Professor
   Dept. of Economics, Farook College (Autonomous)
   9400833013, abduljabar@farookcollege.ac.in
6. **Dr. Yazir P.**
   Asst. Professor
   Dept. of Economics, Farook College (Autonomous)
   9494242407, yasinbox@gmail.com
7. **Dr. Muhammed Kasim C**
   Asst. Professor
   Dept. of Economics, Farook College (Autonomous)
   9562061066, kasimeco@gmail.com

Special Invitee

1. **Dr.P.P. Yusufali**
   Associate Professor(Rtd)
   9446648721, yusufalipp@gmail.com
2. **Prof.C.P.James**
   Associate Professor (rtd.)
   9446401120, drceepeejames@gmail.com

Programme Structure

1. **Duration**: The duration of the programme shall be four semesters distributed over a period of two academic years. The odd semesters (1, 3) shall be from June to October and the even Semesters (2, 4) shall be from November to March. Each semester shall have 90 working days inclusive of all examinations.
2. **Courses:** The programme shall include three types of courses viz Core courses, Elective Courses andAudit Courses
3. **Viva-voce and Project Work:**Comprehensive Viva-voce and Project Work/Dissertation shall be treated as Core Courses. Project Work is mandatory for all regular programmes and Comprehensive Viva-voce is optional and these shall be done in the end semester.
4. **Course code**: Each course shall have a unique alphanumeric code number, which includes abbreviation of the subject in three letters, the semester number (1 to 4) in which the course is offered, the code of the course (C for core course, E for elective and A for audit course) and the serial number of the course (01,02.....).
5. **Credits**:Total credit for the programme shall be 80 (eighty), this describes the weightage of the course concerned and the pattern of distribution is as detailed below :
    a. Total Credit for Core Courses shall not be less than 60 (sixty) and not more than 68 (sixty eight).
    b. Total Credit for Elective Course shall not be less than 12 (twelve) and not more than 20 (Twenty).
    c. Total Credits for Comprehensive Viva-voce and Project Work combined together shall be 8 (eight) subject to a minimum of 4 (four) credit for Project Work.
    d. Total credit in each semester shall vary between 18 to 22.

e. **Elective courses** shall be spread over either in the Third & Fourth Semesters combined or in any one of these Semesters (III / IV) only subject to the stipulations of the BoS concerned.

f. **Study Tour/Field visit/Industrial visit** shall be permitted for institutonal and industrial visit, or for sample collection as a part of the Programme.

g. **Audit Courses**:the students shall complete twoAudit Courses viz AbilityEnhancement and Professional Competency Course in first and second semester respectively. in the. The total credits of these courses is fixed as and it will not be counted for calculating the SGPA & CGPA. The colleges shall conduct examination for these courses and have to intimate /upload the results of the same on the stipulated date during the III Semester. Students have to obtain only minimum pass requirements in the Audit Courses.

Table 1. Audit Course

Sem	Course Title	Suggested Area
1	Ability Enhancement Course (AEC)	1. Internship/Seminar presentation/Publications 2. Case study analysis/Industrial or Practical Training/Community linkage programme 3. Book reviews etc.
2	Professional Competency Course (PCC)	Application level of different software like 1. SPSS 2. R 3. E-Views/STATA 4. Gretel 5. Python.

Evaluation and grading of students in audit courses may be done on the basis of a presentation made by the students on Ability Enhancement Course (AEC) and ProfessionalCompetency Course (PCC) undertaken. Minimum pass is required in each audit course.

I. Attendance

1. The students admitted in the PG programmes shall be required toattend at least 75 percent of the total number of classes held during each semester. The students having less than prescribed percentage of attendance shall not be allowed to appear for the examination.

a. Condonation of shortage of attendance for a maximum of 9 days (10% of the working days in a semester) in the case of single condonation and 18 days (20% of the working days in a semester) in the case of double condonation in a semester subject to a maximum of two times (for single condonation only) during the whole period of Post Graduate programme may be granted by the college as per the existing procedures. In the case of double condonation, only one condonation shall be allowed during the entire programme.

2. Benefit of condonation of attendance will be granted to the students on health grounds, for participating in University Union activities, meeting of the University bodies /Govt.bodies and participation in other extracurricular activities on production of genuine supporting documents, with the recommendation of the Head of the Department concerned.

3. Women students can avail maternity leave as per the existing university rules.

II. Project Work / Dissertation & Comprehensive Viva-Voce

1. There shall be a project work with dissertation and comprehensive viva-voce as separate courses relating to the core area under study in the end Semester

2. The combined credit for the project work and comprehensive viva-voce shall not be more than 8 (eight) credits subject to a minimum of 4 credit for project work.

3. All students have to submit a project report/dissertation in the prescribed structure and format as a part of the project work undertaken as per the stipulations of the concerned BoS.
4. There shall be external and internal evaluation for project work and these shall be combined in the proportion of 4:1. in the case of comprehensive viva-voce, the conduct of external viva-voce is mandatory but internal is optional.

III. Evaluation And Grading

1. The evaluation scheme for each course shall contain two parts;
    a. Internal/Continuous Assessment (CA)
    b. External/End Semester Evaluation (ESE).
6. The percentage raio of intternal and external marks shall be 20:80 and the ration of weightage between Internal and External is 1:4
7. Primary evaluation for Internal and External shall be based on 6 letter grades with the following grade points.

Table 2: Grade Points

Grade	Grade Point
A+	5
A	4
B	3
C	2
D	1
E	0

8. **Grade Point Average:** Internal and External components are separately graded and the combined grade point with weightage 1 for Internal and 4 for external shall be applied to calculate the Grade Point Average (GPA) of each course. Letter grade shall be assigned to each course based on the categorization based on Ten point Scale.
9. Internal assessment shall be based on a predetermined transparent system involving periodic written tests, assignments, seminars and viva-voce in respect of theory courses.
10. The criteria and percentage of weightage assigned to various components for internal evaluation are as follows:

Table 3: Components of Internal Assesment

Sl.No	Component	Percentage	Weightage
1	Examination /Test (2 Tests)	40	2
2	Seminars / Presentation	20	1

3	Assignment	20	1
4	Attendance	20	1
5	**Total**	**100**	**5**

11. Internal mark valuation and Grading

a. **Test mark:** For each course there shall be 2 class **tests** during a semester. Grades should be displayed on the notice board. Valued answer scripts shall be made available to the students for perusal.

Table 3.1 Internal Assessment-Test

Test 1 and 2							
Name	**GP: Test 1**	**GP: Test 2**	**AGP**	**Grade**	**GP**	**W**	**WGP**
Student 1	4.8	3.5	4.15	A	4	2	8
Student 2	5	4.8	4.9	A+	5	2	10
Student 3	2.3	4.7	3.5	B	3	2	6

b. Assignemt: Each student shall be required to do assignment/s for each course. Assignments after valuation must be returned to the students. The teacher shall define the expected quality of the above in terms of structure, content, presentation etc. and inform the same to the students. Punctuality in submission is to be considered.

Table 3.2 Internal Assessment-Assignment

Assignment				
Name	**Grade**	**Grade Point**	**Weightage**	**WGP**
Student 1	A+	5	1	5
Student 2	A	4	1	4
Student 3	C	2	1	2

c. Seminar Presentation: Every student shall deliver seminar / presentation as an internal component for every course and must be evaluated by the respective course teacher in terms of structure, content, presentation and interaction. The soft and hard copies of the seminar report are to be submitted to the course teacher.

Table 3.3 Internal Assessment-Seminar

Seminar Presentation				
Name	**Grade**	**Grade Point**	**Weightage**	**WGP**
Student 1	B	3	1	3
Student 2	A+	5	1	5
Student 3	D	1	1	1

d. Attendence

Table 3.4 Internal Assessment-Attendance

Attendance				
Name	**Grade**	**Grade Point**	**Weightage**	**WGP**

Student 1	A+	5	1	5
Student 2	A+	5	1	5
Student 3	C	2	1	2

e. Consolidated Final Internal mark

Table 3.5: Calculation of Consolidated Internal Mark

Consolidated Internal mark				
Name	**Total WGP**	**Total Weightage**	**Total GP**	**Grade**
Student 1	21	5	21/5=4.20	A+
Student 2	24	5	24/5=4.80	O
Student 3	11	5	11/5=2.20	P

12. There shall be no separate minimum grade point for internal evaluation.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 before 5 days of commencement of external examination.There shall not be any chance for improvement of internal marks and all the records of Continuous Assessment (CA) must be kept in the department.
13. The semester-end examinations for 3 hours shall be conducted by the collegewith question papers set by external experts. The evaluation of the answer scripts shall be done by examiners based on a well-defined scheme of valuation.
14. After the external evaluation, only Grades are to be entered in the space provided in the answer script for individual questions and calculations need to be done only usp to the Cumulative Grade Point (CGP) and all other calculations including grades are to be done by the college.
15. Students shall have the right to apply for revaluation or scrutiny as per rules within the time permitted for it.
16. Photocopies of the answer scripts of the external examination shall be made available to the students for scrutiny on request by them as per rules.
17. The external evaluation shall be done immediately after the examination preferably in a Centralized Valuation Camp.
18. The language of writing the examination shall be English.
19. Regarding the Pattern and setting of questions for external examination
    a. Questions shall be set to assess the knowledge acquired, standard, and application of knowledge, application of knowledge in new situations, critical evaluation of knowledge and the ability to synthesize knowledge. Due weightage shall be given to each module based on content/teaching hours allotted to each module.

b. It has to be ensured that questions covering all skills are set. The setter shall also submit a detailed scheme of evaluation along with the question paper.

c. A question paper shall be a judicious mix of short answer type, short essay type /problem solving type and long essay type questions.

d. The question shall be prepared in such a way that the answers can be awarded A+, A, B, C, D, E Grades.

e. Questions should be asked as far as possible from all modules following a uniform distribution.

f. The pattern shoul be in line with the following table

Table 3.6 Pattern and weightage questions

Part	Type of Question	No of Questions	No of Questions to be Answered	Weightage	Total weightage
A	Objective Type	15	15	1/5	3
B	Short Answer	08	05	1	5
C	Short Essay	10	07	2	14
D	Essay	04	02	4	08
	Total	**34**	**29**	**-**	**30**

20. Regarding the evaluation of Project Work / Dissertation

a. There shall be External and Internal evaluation with the same criteria for Project Work done and the grading system shall be followed as per the specific guidelines.

b. One component among the Project Work evaluation criteria shall be Viva-voce (Project Work related) and the respective weightage shall be 40%.

c. Consolidated Grade for Project Work is calculated by combining both the External and Internal in the Ratio of 4:1 (80% & 20%).

d. For a pass in Project Work, a student has to secure a minimum of P Grade in External and Internal examination combined. If the students could not secure minimum PGrade in the Project work, they will be treated as failed in that attempt and the students may be allowed to rework and resubmit the same in accordance with the University exam stipulations. There shall be no improvement chance for Project Work.

e. The External and Internal evaluation of the Project Work shall be done based on the following criteria and weightages as detailed below :

Table 3.7: Project Evaluation

Sl No	Criteria	Weightage	Weightage External	Weightage Internal

1	Relevance of the topic and Statement of the Problem	20 %	8	2
2	Methodology and Analysis	20%	8	2
3	Quality of Report and Presentation	20%	8	2
4	Viva-voce	40%	16	4
5	Total Weightage	100%	40	10

Table 3.8 Model for Calculating Grade for Project by Externals Evaluators

Components	**Internal**				**External**			
	W	**Grade**	**GP**	**WGP**	**W**	**Grade**	**GP**	**WGP**
Relevance and statement of the problem	8	A	4	32	2	A	4	8
Methedology and Analysis	8	B	3	24	2	B	3	6
Qualit of Report and Presentation	8	A+	5	40	2	A	4	8
Viva-voce	16	A	4	64	4	A	4	16
Total	**40**			**160**	**10**			**38**
Grade	**160/40=4, A+ Grade**				**38/10=3.8, A+ Grade**			

21. Regarding the Conduct of Comprehensive Viva-Voce

    a. There shall be External and Internal Comprehensive Viva-voce; while the External Conduct of the Viva-voce is mandatory and the Internal conduct of the viva-voce will be optional.

    b. The concerned Boards of Studies shall design the structure, criteria, details of appointment of Board of examiners (both external and internal) and other relevant aspects of its evaluation.

    c. For a pass in Comprehensive viva-voce, a student has to secure a minimum of C Grade in External and Internal examination combined. There shall be no improvement chance for Comprehensive viva-voce.

IV. Direct Grading System

1. Direct Grading System based on a 10Point scale is used to evaluate the performance (External and Internal Examination of students)
2. For all courses, Semester and overall programme, letter grades and GPA/SGPA/CGPA are given on the following way;
    a) First Stage Evaluation for both Internal and External is to be done by the Teachers concerned in the 6 point scale given in table 2
    b) The calculation of overall Grade (G) in the External Examination of a a theory paper will be as per the folllwing table

Table 4: Calculation of Grade in External Examination

Type	Qn. No	Grade	Grade Point	Weightage	WGP
Objective	1-5	A+	5	1	**5**
	6-10	C	2		**2**
	11-15	B	3		**3**
Short Answer	16	A+	5	1	**5**
	17	-	-		**-**
	18	A	4		**4**
	19	C	2		**2**
	20	-	-		**-**
	21	A	4		**4**
	22	-	-		**-**
	23	B	3		**3**
Short Essay	24	B	3	2	**6**
	25	A+	5		**10**
	26	-	-		**-**
	27	C	2		**4**
	28	B	3		**6**
	29	A	4		**8**
	30	-	-		**-**
	31	B	3		**6**
	32	A	4		**8**
	33	-	-		**-**
Essay	34	A+	5	4	**20**
	35	-	-		**-**
	36	-	-		**-**
	37	A	4		**16**
Total	37			30	**112**
Grade	**112/30=3.73, Grade A**				

c) The range of Grade for both Internal & External shall be given in the following table

Table 4.1 Range of Grade and Indicators

Grade	Grade Range	Range (%)	Merit / Indicator
O	4.25 – 5.00	85.00 –100.00	Outstanding
A+	3.75 – 4.24	75.00 –84.99	Excellent
A	3.25 – 3.74	65.00 –74.99	Very Good
B+	2.75 – 3.24	55.00 –64.99	Good

B	2.50 – 2.74	50.00 –54.99	Above Average
C	2.25 – 2.49	45.00 –49.99	Average
P	2.00 -2.24	40.00 –44.99	Pass
F	< 2.00	Below 40	Fail
I	0	–	Incomplete
Ab	0	–	Absent

d) No separate minimum is required for Internal evaluation for a pass, but a minimum P Grade is required for a pass in the external evaluation. However, a minimum P grade is required for pass in a course.

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

f) The candidates who wish to improve the grade / grade point of the external examination of a course/s they have passed already can do the same by appearing in the external examination of the concerned semester along with the immediate junior batch.

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

V. Award of Degree

1. The successful completion of all the courses with **P** Grade shall be the minimum requirement for the award of the degree.

VI. Phases of Evaluation

1. In the first phaseinternal and external evaluationsfor every semester can be done by the concerned teachers/examiners at 6 point scale by assigning the respective Grade Points (see Table No.)

2. In the secondphasecollege has to calculate of GPA, SGPA & CGPA based on the Direct Grading system on 10 Point Scale (See, Table No.)

3. The consolidated Grade (GPA) for both Internala and External can be assignied as pe the following table

   a. Eg: The external grade awarded for the Course 1 is 'A' with a Grade point of 3.83 and its internal is 'O'. with a Grade Point of 4.6.

Table 5: Consolidated CPA

Exam	Weightage	Grade	Grade Point	WGP
External	4	A+	3.83	15.32

Internal	1	O	4.40	4.40
Total	5	-	-	19.72
Course Grade (GPA)	**GPA=WGP/W. 19.72/5=3.94, Grade=A+**			

4. Semester Grade Point Average (SGPA): 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.

$$SGPA = \frac{Total\ Credit\ Points}{Total\ Credit}$$

Table 5.1: Model of calculation of SGPA

Code	Tittle of the course	Credit	Grade	CGP	Credit Point
MEC1C01	Microeconomic Theory and Applications I	5	O	4.25	21.3
MEC1C02	Macroeconomic Theories and Policies I	5	A+	3.9	19.5
MEC1C03	Indian Economy: Problems and Policies I	5	A	3.45	17.3
MEC1C04	Quantitative Methods for Economic Analysis-I	5	A	3.64	18.2
Total		20			76.2
SGPA		**76.2/20=3.81, Grade A+**			

5. Calculation of Consolidated Grade Point Average is to be done by the college after student clears all papers. This is the consolidated net result (Grade) of a Programme.Eg. If A student has secured SGPA of 3.81 in the first semester, 3.65 in the second semester, 3.70 in the third semester and 3.80 in the fourth semester, then the Consolidated Grade Point Average(CGPA) can be calculated as follows.

Table 5.2: Consolidated Grade Point Average(CGPA)

Semester	Credit	Grade	SGPA	Credit Points
I	19	A+	3.81	72.4
II	20	A+	3.85	77
III	19	A	3.70	70.3
IV	22	A+	3.80	83.6
Total	80			303.3
CGPA	**303.3/80=3.79, 3.75<3.79<4.24, Grade A+**			

VII. Eligibility Criteria

1. Under Mark System:BA degree of Universities with Economics/Foreign Trade/Development Economics (Main) or equivalent degree with at least 45% marks for Part III (excluding Complimentaries) Or BSc degree of the Universities with Statistics/Mathematics (Main) or equivalent degree with at least 70% marks for Part III (excluding subsidiaries). OBC/OEC candidates are eligible to relaxation up to 5%. SC/ST candidates need only to get a pass.

2. Under Grade System: BA degree of Universities with Economics/Foreign Trade/Development Economics (Main) or equivalent degree with Overall CGPA, at least equivalent to 50% or BSc degree of the universities with Statistics/Mathematics (Main) or equivalent degree with equivalent grade to 70%. OB/OEC candidates are eligible for relaxation up to 5%. SC/ST candidates need only to get a pass.

OUTCOMES

I. Programme Specific Outcomes (PSO)

1. PSO 1. Knowledge of Economic System: The students have thorough knowledge of economic theories and variables and they will be able to analyze the function of economic system as whole by connecting with economic theories.
2. PSO 2. Development Perspectives: Each economy will be adopting their own policies according to their economic conditions and circumstances. The students will be able to understand these policies and activities connecting with each countries' economic background and should be able develop their own perspectives on the basis of economic theories and experiences from various countries.
3. PSO 3. Statistical and Econometric Applications: The student will be acquainted with basic and applied statistical and econometric tools and methods. Moreover, they will develop skills to anlayse the functioning of the economy by using these tools.
4. PSO 4. Perspectives on Indian Economy: They will be able to understand opportunities and challenges which India facing a head and they analyse the basic issues with the help of economic theories.
5. PSO 5. Knowledge Production: The student will be having deep knowledge in various data sets in Indian context and research methodology. Through producing a project report as the part of their curriculum, they will be able to present their work in national or international conferences and to contribute to economic literature by publishing their research works in magazines and economic journals

II. Scheme of The Programme

Code	Title of Course	Credit	Hours/ Week	Total Weights	
				Internal	External
IstSemester					
MEC1C01	Microeconomics: Theory and Applications I	5	7	5	30
MEC1C02	Macroeconomics: Theories and Policies I	5	6	5	30
MEC1C03	Indian Economy: Problems and Policies	5	6	5	30
MEC1C04	Quantitative Methods for Economic Analysis-I	4	6	5	30
MEC1A01	Ability Enhancement Course (Book Review)	4*	-	-	-

		19	25		
IIndSemester					
MEC2C05	Microeconomics: Theory and Applications II	5	6	5	30
MEC2C06	Macroeconomics: Theories and Policies II	5	6	5	30
MEC2C07	Public Finance: Theory and Practice	5	7	5	30
MEC2C08	Quantitative Methods for Economic Analysis-II	5	6	5	30
MEC2A02	Professional Competency Course (Any Statistical software)	4*	-	-	-
		20	25		
IIIrdSemester					
MEC3C09	International Trade	5	6	5	30
MEC3C10	Economics of Growth and Development	5	6	5	30
MEC3C11	Econometrics: Theory And Applications	5	7	5	30
Elective II (MEC3E01)	Elective I: Research Methodology and Computer Applications	4	6	5	30
		19	25		
IVthSemester					
MEC4C12	International Finance	3	6	5	30
MEC4C13	Financial Economics	3	6	5	30
Elective II	Elective II: Advanced Econometrics	4	6	5	30
Elective III	Elective III	4	6	5	30
MEC4P14P	Project	4	1	1	4
MEC4V15	Comprehensive Viva Voce	4	-	-	-
		22	25		
	Total	**80**			

20 hours are allotted for seminars for each course per semester.

@Three elective courses to be selected from the 6 courses appended.

III. List of Elective Courses

Sl No	Code	Course
1	MEC3E01	Research methodology and Computer Applications
2	MEC4E02	Advanced Econometrics
3	MEC4E03	Environmental Economics
4	MEC4E04	Political Economy of Development
5	MEC4E05	Contribution by Nobel Laureates
6	MEC4E06	Gender Economics

IV. **Audit Courses**

The students will have to undergo two audit courses with 4 credits each. The credits will not be counted for evaluating the overall SGPA & CGPA. Audit courses are not part of the normal workload.

Semester I: Ability Enhancement Course (AEC) 4 Credits

The student can attempt any one of the following for securing 4 credits.

1. An internship in an academic/research institution or in any related organization suitable to the topic under study, under a supervisor/teacher official.
2. One seminar presentation of 15 minutes duration, on a relevant topic.
3. One case study analysis approved by the Department Council.
4. Community Linkage Programme in a nearby Local Government.
5. Review of one recently published book related to Economics.

Semester II: Professional Competency Course (PCC) 4 Credits

The student should acquire skill in at least one of the software such as SPSS, R, Python, Stata or any software relevant to Economics and use the software to do any one of the following with the help of a supervising teacher.

1. Calculation of descriptive measures in statistics.
2. Calculation of correlation and regression.
3. Fitting of normal curve and parabola.
4. Perform ANOVA.
5. Multiple regression models.
6. Calculation of growth rate, elasticity etc.
7. Perform *t*, chi square and F test.
8. Perform any non-parametric test.

V. Project Guidlines

1. Cover Page and Front Page

a. Title of theproject
b. Degree for which project issubmitted.
c. Name of the Candidate & RollNumber
d. Name of theCollege
e. Month and year the project ispresented

2. Priliminary Pages

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b. Certificate of the head of thedepartment.
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a. Introduction

b. Statement ofobjectives

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d. Methodology

e. Data sources(primary/secondary)

f. Tools of analysis (statistical & Econometric)

g. Scope of the study (sample size & period ofstudy)

h. Significance of thestudy

i. Limitations of thestudy

j. Chapteroutlines.

4. Review of Literature

a. Analysis and Discussion Chapters

b. ConcludingChapter

c. Bibliography

d. Appendix

VI. Style of presentation

The Report Length should be 50 to 70 pages excluding Appendix andCertificates. The complete dissertation should be in line with APA style.

DETAILED SYLLABUS

Semester I

Course Category: Core Course 1
Course Title and Code:**Microeconomics: Theory and Applications I, MEC1C01**
No. of Credits : 5
Total Hours : 100

I. Course Objectives

The core objective of this course is to identify appropriate economic models (e.g., models of perfectly competitive markets and various market imperfections) and apply them

to analyse and predict the behaviour of individuals and firms in certain and uncertain economic situations. Learning micro economics is to derive the central results about decision-making and optimum choice economic agents. This study is to understand the utility maximization and expenditure minimization problems.

II. Course Outcome

1. It helps the students to enrich their basic understanding and logical reasoning.
2. It give more insights about risk and return, methods of managing risks, diversifying risks, probabilities of getting more returns on investment made.
3. The course helps to know the psychological and behavioural factors involved in demand, consumption, marketing and trading..
4. The students can familiarize about various production technologies, production functions and markets
5. This course also enables the students to know about the following aspects that can definitely influence in taking intellectual decision particularly in the situations of dilemma and uncertainty as how to manage problems and take optimal decisions.

III. Teaching and Learning Methodologies (TLM)

1. Lectures supported by group tutorial work.
2. The use of prescribed text-books, e-learning resources and other indispensable study materials.
3. Relevant, useful and applicable project work in which some of them may be team-based.
4. Activities are designed to develop generic/transferable and subject-specific skills.

IV. Course Outline

Module I Consumer Behaviour under Uncertainty and Risk

Choice under uncertainty- Representing uncertainty by Probability distributions- Expected Value and Variability- Maximising expected utility- Fair gambles and expected utility hypothesis- St. Petersburg paradox-Neumann-Morgenstern utility index- Friedman Savage hypothesis-Markowitz hypothesis- Utility functions and attitudes towards risk- risk neutrality,

risk aversion, risk preference, certainty equivalent, demand for risky assets- reducing risks diversification, insurance, flexibility, information- The state preference approach to choice under uncertainty.

Module II Market Demand for Commodities

Deriving market demand- Network externalities- Bandwagon effect, Snob effect and Veblen effect- Empirical estimation of demand- Linear demand curve, Constant elasticity demand function- Dynamic versions of demand functions-Nerlove, Houthakker and Taylor-Linear expenditure system- Characteristic approach to demand function.

Module III Theory of Production and Costs

Short run and long run production function- returns to scale- elasticity of substitution- Homogeneous production function- Linear homogeneous production function- Fixed proportion production function- Cobb Douglas production function and CES production function- Technological progress and production function- Cost function- Cost minimising input choices- properties of cost functions- Economies of scope- The Learning curve – Estimating and Predicting cost- Short run and long run distinction.

Module IV Theory of Oligopoly Markets

Oligopoly- Characteristics- Collusive versus non-collusive oligopoly- Non-collusive models-

Cournot model- Bertrand model- Edgeworth model - Chamberlin's model-Kinked demand curve model of Sweezy- Stackelberg's model- Welfare properties of duopolistic markets-Collusive models-Cartels and Price leadership- Theory of limit pricing - Models of Bain, Sylos-Labini, Modigliani, Bhagwati and Pashigian – Managerial theories of the firm - Baumol, Marris, Williamson.

Module V Theory of Games

Basic concepts-Cooperative versus non-cooperative game- Zero sum versus non- zero sum game- Prisoner's dilemma- Dominant strategies- Nash equilibrium- Prisoner's dilemma- Pure

strategies- Mixed strategies- repeated games- Sequential games- Threats, commitments and credibility.

V. References

1. Walter Nicholson and Christopher Snyder (2017): Microeconomic Theory- Basic Conceptsand Extensions, 12th edition, Cengage Learning India Private Limited.
2. Andrew Schotter (2009): Microeconomics: A Modern Approach- 1 st edition, South Western Cengage Learning.
3. Michael E Wetzstein (2013): Microeconomic Theory- Concepts and Connections, 2 nd edition, Routledge.
4. Robert S Pindyck and Daniel L Rubinfeld (2017): Microeconomics- 8 th edition, Pearson.

5. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1 stedition, South Western Cengage Learning.
6. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): MicroeconomicTheory- 1st edition, Oxford University Press.
7. Geoffrey A Jehle (2010): Advanced Microeconomic Theory- 3 rd edition, Prentice Hall
8. Hall R Varian (2014): Intermediate Microeconomics- A Modern Approach, WW Norton and Co.
9. Jeffrey M Perloff (2019): Microeconomics -7 th edition, Pearson
10. Hugh Gravelle and Ray Rees (2007): Microeconomics- 3rd edition, Pearson Education
11. Edgar K Browning and Mark Zupan (2011): Microeconomics: Theory and Applications- 3rdedition.
12. Dominick Salvatore (2009): Microeconomics – 5th edition, Oxford University Press.
13. A Koutsoyiannis (1979): Modern Microeconomics- 2nd edition, Macmillan.
14. Robert Y Awh (1976): Microeconomics: Theory and Applications- John Wiley & Sons
15. Watson and Getz (2004): Price Theory and its Uses- 5th edition, AITBS Publishers andDistributors.
16. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: A MathematicalApproach- 8th edition, McGraw-Hill
17. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1st Edition,Tata McGraw-Hill.

Semester I

Course Category: Core Course 2
Course Title and Code: **Macroeconomics: Theories and Policies I, MEC1C02**
No. of Credits: 5
Total Hours: 90

I. Course Objectives

This course intends to provide alternative perspectives with respect to macroeconomic theories and policies through introducing Keynesian economics, IS LM analysis and various

theories related to consumption, investment and demand for money. It also gives a fair exposure to the importance of The Post Keynesian and New Classical Macroeconomics.

II. Course Outcome

1. The students understand the methods of calculating macro aggregates like national income, Inflation, unemployment and Balance of Payment.
2. The students become familiar with the macro level data sources and gain interest for research in aggregative data and enable the student to understand and analyze the relationship between aggregates.
3. The students will be able to make a critical evaluation of the economic performance of the countries and think of alternative policies and ways for fine tuning the economy.
4. Help the students to devise mathematical modelling for economic theories.

III. Course Outline

Module I: Theories of Consumption and Investment

The Psychological Law of Consumption–Kuznets's Consumption Puzzle–Fisher's Inter-temporal Choice Model–Permanent Income Hypothesis–Life Cycle Hypothesis – The Random Walk Hypothesis-The Keynesian Investment Theory- Neoclassical Theory of Business Fixed Investment–The Accelerator Theory of inventory Investment–The financial investment and Tobin's Q Theory

Module II: IS-LM Model

The Interaction of Real and Monetary Sector–The Neoclassical and Keynesian version of IS-LM Model–Fiscal and Monetary Policy Analysis in IS-LM Model–Fiscal Policy and Crowding out–Ricardian Equivalence–The Relative Efficacy of Fiscal and Monetary Policy–The Aggregate Supply in the Short and Long Run – Aggregate Demand and Price Determination– Keynes Effect, Pigou Effect and Real Balance Effect in the IS-LM Model.

Module III: The Classical and Keynesian Labour Market

The demand for Labour-MP_L and Labour demand curve-The Supply of Labour: Income-Leisure trade off-Factors shiftingLabour Demand and Labour Supply Curve-Labour market equilibrium–Aggregate Supply with/without Money Illusion –Principles of Effective Demand -The Keynesian labour market and underemployment Equilibrium.

Module IV: Business Cycle:

Great Depression and alternative view on causes- Accelerator Interaction Model – Real Business Cycle Theory – Political Business Cycle.

Module V: The Post Keynesian and New Classical Macroeconomics

Monetarism–New Classical Macroeconomics-Rational Expectation Hypothesis- The Lucas surprise supply function- Policy ineffective Theorem- The Lucas Critique- Rational Expectation and implication of Monitory policy-Supply side economics- Re-interpretation of Keynes by Clower and Leijonhuvad-The Dual decision hypothesis - Micro foundations of macroeconomics – Small menu cost model – Efficiency wage theories – Insider-Outsider model.

IV. References

1. Gregory Mankiw (2008): Macroeconomics- 6th ed, Worth Publishers NY.
2. Romer, David (2006), Advanced Macroeconomics, McGraw-Hill/Irwin, NY, 3rd edition.
3. Froyen, Richard.T.(2008): Macroeconomics 2nd ed. Dorling Kindersley, India
4. Rosalind Levacic and Alexander Rebman (1982): Macroeconomics: An Introduction toKeynesian-Neoclassical Controversies- 2nd ed. Macmillan.
5. RudigerDornbusch, Stanley Fisher and Richard Startz (2004): Macroeconomics- TataMcGraw Hill, 9th ed.
6. Richard T. Froyen (2008), Macroeconomics - Theories and Policies, Tenth Edition, Pearson education, Ne Delhi.
7. Eugene Diuto (2010), Macroeconomic Theory, Shaums's Outline Series.
8. Errol D'Souza (2008): Macroeconomics- Pearson Education.
9. P.N Junankar (1972): Investment: Theories and Evidence- Macmillan.
10. Fred R Glahe (1985): Macroeconomics: Theory and Policy- Harcourt Publishers, New Delhi.
11. Veneries and Sebold (1977): Macroeconomics: Models and Policies- John Wiley &Sons.
12. Gurley J and Shaw E S (1960): Money in a Theory of Finance- Washington: BrookingsInstitution.
13. Robert J. Gordon(2011): Macroeconomics: Addison-Wesley
14. Shapiro, Edward (1996): Macro Economic Analysis – Galgolia Publications, New Delhi.
15. Brian Snowdown,Howard Vane and Peter Wynarczyk (1994). A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought, Edward Elgar Publishing Limited, U.K.
16. Brian Snowdown and Howard Vane Modern (2005). Macroeconomics: Its Origins, Development and Current State, Edward Elgar Publishing Limited, U.K.

17. D.N Dwivedi (2016), Macroeconomics: Theory and Policy, Tata McGraw Hill, New Delhi.
18. Gupta, G.S (2014): Macroeconomics Theory and Policy, 4th ed, TMH, New Delhi
19. Ackley, Gardner (1978): Macroeconomics—Theory and Policy; MacMillan, New York.
20. Barro, R.J. Macroeconomics (1997). Fifth edition, MIT Press

Semester I

Course Category: Core Course 3
Course Title and Code:**Indian Economy: Problems and Policies, MEC1C03**
No. of Credits: 5
Total Hours:90

I. Course Objective

This course aims to debate major issues related to growth and development in India. An evaluation of the impact of economic reforms on various sectors is included. The course also comprises of discussions on Kerala's development experience and the emerging challenges.

II. Course Outcome

The student should develop an understanding pattern of growth and development issues in India. The students also understand major constraints of agricultural and industrial development in India. Students are also expected to appreciate the driving factors of development experience of Kerala and the emerging challenges.

III. Course Outline

Module I: Growth and Structural Changes

Economic Growth and Structural Changesduring Pre and Post Reform Periods-Poverty: Official Estimates of Lakdawala, Tendulkar, & Rangarajan Committees-Methodical Issues and need for redefining poverty line- Holistic approach for ending poverty- Employment Growth: Trend and Structure -Unemployment:trends and reasons - Income and wealth inequality: Causes and Polices-Regional Imbalances in growth and development:Key Indicators and Causes- Inclusive growth in India.

Module II: Economic Reforms

Background of economic reforms- Industrial policy reforms- Trade policy reforms- Fiscal policy reforms- Financial sector reforms- Foreign investment policy reforms- An appraisal of India's economic reforms.

Module III: Agricultural Sector

Review of Agricultural Performance: Changes in Cropping Pattern, Production and productivity - Reasons for stagnation –Trends in Investment - Agricultural Price Policies and Evaluation - WTO and Indian Agriculture - Farmers' indebtedness and suicides –Problem of Food Security in India – PDS & TPDS- Critical Review of PDS – National Food Security Act and Critical Evaluation.

Module IV: Industry, Service External Sectors

Growth and Pattern of Industrial Production – Problems of Industrial Development - Growth and Contribution of Service Sector- Sustainability of Service Led Growth - Growth and composition of exports - Growth and composition of Imports - India's trade in services - Foreign investment Inflows - BOP situation in India.

Module V: Kerala Economy

Kerala Model of Development: Meaning and Indicators - Public Policies and Other Agents of Change-Criticisms of Kerala Model of Development - Kerala's Turn around in Growth

and Structural change -Agricultural stagnation: nature and reasons - Industrial Backwardness: nature and reasons - Achievements of and Challenges to decentralization - Migration and Remittances and itsimpact - Fiscal crisis in Kerala: Causes and Consequences - Privatization of education and exclusion – Economic and Social group Inequality in Kerala.

IV. Activity for the Students

1. Students are required to download the reports of consumer expenditure surveys from MOSPI website, and should sbmitt a write up on methodological issues in poverty estimation in India.
2. To evalute the Employment Programmes, students are required to conduct a personal interview with workers of NREGA and take an account of days of employment and compensations for the last one Year.
3. Conduct a survey among the outliers of Kerala model of development (Scheduled Tribes and Fishermen) and prepare a report on the nature of their socio-economic backwardness.

V. References for Indian Economy

1. Vijay Joshi and IMD Little(1994). India: Macroeconomics and Political Economy: 1964-1991-Oxford University Press, New Delhi.
2. Vijay Joshi and I. M.D Little (1996). India's Economic Reforms: 1991- 2001- Oxford UniversityPress, New Delhi.
3. Isher Judge Ahluwalia and IMD Little (ed) (1998). India's Economic Reforms and Development:Essays for Manmohan Singh- Oxford University Press, Delhi.
4. Shanker Acharya and Rakesh Mohan (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, New Delhi.
5. Uma Kapila (2014), Indian Economy Performance and Policies, 14th Edition, Academic Foundations, New Delhi.
6. Mahendradev S (2010): Inclusive Growth in India- Oxford University Press, New Delhi.
7. G S Bhalla and Gurmail Singh (2009), 'Economic Liberalisation and Indian Agriculture: A Statewise Analysis', *Economic & Political Weekly*, December 26, vol xliv no 52.
8. Bhalla, G S (2004): Globalisation and Indian Agriculture, State of the Indian Farmer: A Millennium Study, Academic Publishers, New Delhi.
9. Bardhan, P.K. (1999), The Political Economy of Development in India, OUP, New Delhi.

10. Dreze, Jean and AmartyaSen (2013): An Uncertain Glory – India and its Contradictions, Penguin Books.
11. Bharati V Pathak (2014). Indian Financial System, 4th ed., Pearson, Delhi.
12. Ministry of Finance, Government of India, Economic Survey, Vol.1&2, 2017-18, Oxford University Press.
13. Vaidyanathan, A. (2010). Agricultural growth in India: Role of technology, incentives and institutions. New Delhi: Oxford University Press.
14. Hanumantha Rao C.H. (2005). Agriculture, food security, poverty and environment: Essays on post reform India. New Delhi: Oxford University Press.
15. Chand, Ramesh (2002): Trade Liberalisation, WTO and Indian Agriculture: Experience and Prospects, Mittal Publications,New Delhi.
16. Sukhadeo Thorat and Amaresh Dubey,(2012) 'Has Growth Been Socially Inclusive during 1993-94 – 2009-10?', *Economic & Political Weekly*, march 10, Vol xlvii no 1.
17. Gaurav Datt and Ashwini Mahajan (2013), Datt&Sundaram Indian Economy, 67th Edition, Sultan Chand and Co, New Delhi.
18. V.K Misra and Puri (2014), Indian Economy, 32ndRevised edition, Himalaya Publishing House, New Delhi.
19. Arjun Jayadev, Sripad Motiram and Vamsi Vakulabharanam, (2007), 'Patterns of Wealth Disparities in India during the Liberalisation Era, *Economic and Political Weekly*, Vol. 42, No. 38, Sep. 22 - 28, pp. 3853, 3855-3863.

VI. References for Kerala Economy

20. V.K Ramachandran (1996), "On Kerala's Development Acheivements" in Jean Dreaze and Amrtya Sen (eds), Indian Development, Selected Regional Perspective, Oxford University Press.
21. CDS (1975): Poverty Unemployment and Development Policy: A Case Study of Selected Issues with Reference to Kerala- CDS, Trivandrum.
22. Government of India (2008), "Kerala Development Report", Academic Foundation, New Delhi.
23. Govt of Kerala - CDS (2006), Human Development Report 2005, Published by State Planning Board Government of Kerala.
24. John Kurien (1995), "The Kerala Model, Its central tendency and the outliers", Social Scentist, Vol.23, No. 1/3. Pp 70-90.

25. D. Shyjan and A.S Sunitha (2009), "Changing Phases of Kerala's Development Experience and the Exclusion of Scheduled Tribes: Towards an Explanation". ArthaVijnana, December
26. K.P Kannan (2005), "Kerala's Turnaround in Growth, Role of Social Development, Remittances, and Reform", *Economic and Political Weekly*, February 5.
27. K.K George (2009), Kerala Economy: Growth, Structure, Strength and Weakness,Working Paper No. 25, Centre for Socio-economic & Environmental Studies, (CSES).
28. Kannan K.P and Pushpangadan K (1988) 'Agricultural Stagnation in Kerala: An Exploratory Analysis', Economic and Political Weekly, September 24.
29. Kannan (2011) 'Agricultural Development in an Emerging Non-Agrarian Regional Economy: Kerala's Challenges', February 26, vol xlvi 64 no 9.
30. Subrahmanian K.K (1990), 'Development paradox in Kerala: Analysis of industrial stagnation', Economic and Political Weekly, September 15.
31. Subrahmanian K.K and Abdul Azeez E. (1990), "Industrial Growth in Kerala: Trends and Explanations', Working Paper No. 310, Centre for Development Studies, Thriruvanathapuram.
32. Harilal K.N (2013). "Confronting Bureaucratic Capture:Rethinking Participatory Planning Methodology in Kerala". *Economic and Political Weekly*. September 7.
33. Irudaya Rajan S. and Zacharia K.C. (2019). Emigration and Remittances: New Evidences from Kerala Migration Survey, 2018. Working Paper No. 483. Centre for Development Studies, Thiruvananthapuram.
34. K.K. George and K.K. Krishnakumar (2012): Trends in Kerala State Finances-1991-92 to2012-13: A Study in the Backdrop of Economic Reforms in India.
35. George K K (1999): Limits to Kerala Model of Development.Centre for Development Studies, Thiruvananthapuram.
36. Ajith Kumar N. And George K.K (2009). "Kerala's Education System: From Inclusion to Exclusion?". *Economic and Political Weekly*. October 10.
37. M.A Oommen (2014)."Growth, Inequality and Wellbeing: Revisiting fifty years of Kerala's Development Trajectory", Journal of South Asian Development. Vol. 9 Isssue.2
38. Syam Prasad (2013). "Polarization, Inequality and and Inclusive growth: Kerala's Experience in the Reform Period". Journal of South Asian Studies.Vol. 1. Issue. 2.

Semester I

Course Category: Core Course 4

Course Title and Code:**Quantitative Methods for Economic Analysis I, MEC1C04**
No. of Credits:4
Total Hours: 90

I. Course Objectives

The purpose of the course is to equip the students with essential mathematical and statistical methods applicable in economic analysis. The course focuses on the basic principles of integration, differentiation, differential equations, probability and its distribution.

II. Course outcomes:

1. To understand concept of limit, continuity and differentiability of functions.
2. To develop skills in generalizing the concepts in univariate calculus to multivariate setup.
3. To apply the integrals and differential equations in the economic analysis.
4. To explain discrete and continuous distributions.
5. To appreciate the features of probability mass and probability density functions, CDF etc.
6. To make data anaylsis using R programming

III. Course Outline

Module I: Differentiation and Integration (Concepts and Applications only).**:**

Limits and Continuity- Derivative of one independent variable – Rules of differentiation – higher order derivatives- Optimization of single variable function– Multi variable functions- Functions of Several Variables and Partial Derivatives - Rules of Partial Differentiation - Second-Order Partial Derivatives - Optimization of Multivariable Functions - Constrained Optimization with Lagrange Multipliers-Integration – Rules of Integration -- Integration by Substitution-Integration by parts- The definite integrals- Economic applications of definite and indefinite integrals.

Module II: Differential and difference equation (Concepts and Applications only).**:**

First order differential equations – definitions and concepts- general formula for differential equations- differential equations for limited and unlimited growth – first order difference equations- solutions of first order difference equations- general formula for fist order linear difference equations, applications- stability conditions, cobb web model.

Module III: Introduction to probability (Concepts and Applications only).**:**

Definitions of Probability - classical, empirical and axiomatic approaches-Permutations and Combinations -Addition Theorem- Multiplication Theorem of probability-Independent and Dependent Events-Bayes' theorem.

Module IV: Probability Distribution (Concepts and Applications only)**:**

Discrete and continuous random variables, probability mass function (PMF) and probability density function (PDF)- Cumulative Distribution Function (CDF),Mathematical expectation, Variance, moments, Joint PDF and Covariance-Theoretical Discrete distributions: Binomial, Poisson and its characteristics and fitting.

Module V: Data Analysis using R Programming (Practical oriented):

Introduction to R: R as a calculator, statistical software and a programming language, R preliminaries, getting help, data inputting methods(direct and importing from other spread sheet applications like Excel), data accessing, and indexing, Graphics in R, built in functions, saving, storing and retrieving work. Generation of random samples from Binomial and Poisson distribution and fitting problems.

IV. Note to the question paper setter:

1. This course is meant for students of MA economics. Only conceptual and applicaiton level questions are expected from this syllabus.
2. Although module five is practial oriented, very short and short short essay type questions (1 weightage and 2 weightage) can be asked for the examination

V. References

1. Anderson, Sweeney and Williams (2013), Statistics for Business and Economics, 12th Edition, Thomson Education.
2. Alpha C Chiang: Fundamental Methods of Mathematical Economics- 2nd Ed.-Inter National Student Edition, McGraw-Hill.
3. SreenathBaruah: Basic Mathematics and its Applications in Economics- MacMillan India
4. Taro Yamane (1973): Statistics: An Introductory Analysis- Harper & Row.
5. Dowling E.T (1992): Introduction to Mathematical Economics- Schaum's Outline Series, McGraw Hill, New York.
6. Tulsian P.C and Vishal Pandey: Quantitative Techniques- Pearson Education, New Delhi.
7. Hoel PG (1971): Introduction to Mathematical Statistics- John Wiley & Sons.
8. Guptha and Manmohan: Linear programming-Sulthan Chand and Sons
9. Sydsaeter and Hammond, Mathematics for Economic Analysis (2002), Pearson
10. Yamane Taro(1981), Mathematics for Economists: An Elementary Survey,PHI Learning
11. S.P. Gupta: Statistical Methods- S Chand and Sons, New Delhi.

Semester II

Course Category: Core Course 5

Course Title and Code:**Microeconomics: Theory and Applications II, MEC2C05**

No. of Credits: 5

Total Hours: 90

I. Course Objectives

The basic objective of this course is to understand the efficiency condition of competitive equilibrium and its welfare implications which help the student to compare various criteria for evaluating social welfare and arriving at a social choice and to understand how externalities, common property recourses and public goods lead to ineffiency in allocation. To assess the issues arising from asymmetric information in the real world and to analyse its impact is another objective.

II. Course Outcome

1. It helps the students to build up policy oriented decisions which are highly in the pursuit of public welfare and public choice.
2. It improves the skill and logical reasoning and decision making power of students. It helps the students for broadening their knowledge and understanding about firms and industries problems and their solutions.
3. The course helps the students to know the inter relationship between different sectors.
4. The course also helps the students to aware about the need and relevance of social welfare, how social welfare can be improved through the various policy implications and implementations and the alternative ways of ensuring public welfare and various social marginal conditions to achieve public welfare. This aspect of study can assure the students to improve their knowledge about the right public choice and logical thinking .
5. It also helps to improves the student's capability to look into various dimensions of transaction costs, amongst the bargaining cost and search costs are most important, the need and cost of participating into an exchange or market and the situations of wrong selection of goods due to imperfect information, increased efficiency can assure by increased wage and perks

III. Teaching Learning Methodologies (TLM)

1. Lectures supported by group tutorial work and practical.
2. The use of prescribed text-books, e-learning resources and other indispensable study materials.
3. Relevant, useful and applicable project work in which some of them may be team-based.
4. Activities be designed to develop generic/transferable and subject-specific skills.

IV. Course Outline

Module I: Intertemporal Choice and Capital Decisions

Capital and the rate of return- Determining the rate of return- Demand for future goods- Utility maximisation- Effects of changes in r- Supply of future goods- Equilibrium price of future goods- Rate of return- Real interest rates and nominal interest rates- Pricing of risky assets- The firm's demand for capital- The net present value criterion for capital investment decisions- Adjustment for risks- Diversification versus non-diversifiable risks- The capital assets pricing model.

Module II: General Equilibrium and Welfare Economics

Input Output analysis- Technical coeffients- Hawkins Simon condition- Tpes of input output models- Elements of general equilibrium analysis-General equilibrium of exchange- General equilibrium of production- Efficiency of competitive markets- Welfare economics- Criteria of social welfare-Pareto optimality-Kaldor-Hicks compensation criterion- Scitovsky criterion- Deriving a Social welfare function- Theory of second best- Arrow's impossibility theorem- Rawls theory of justice- First Theorem of welfare economics- Second Theorem of welfare economics.

Module III: Externalities and Public Goods

Externalities-Negative externalities in consumption and production-Positive externalities in consumption and production-Externalities and inefficiency-Ways of correcting market failure- Externalities and property rights-Coase theorem- Common property resources-Tragedy of commons-PublicGood-Characteristics- Public goods and market failure-Provision of public goods- Free rider problem- Lindahl pricing.

Module IV: Asymmetric information

Asymmetric information- Implications of asymmetric information- The lemons problem-Adverse selection- Hidden information- Moral hazard (hidden action)- Insurance markets-Market signalling- Principal-agent problem- The efficiency wage theory.

Module V: Behavioural Economics

Behavioural economics- Reference points and consumer preferences- Rules of thumb and biases in decision making.

V. References

1. Walter Nicholson and Christopher Snyder (2017): Microeconomic Theory- Basic Conceptsand Extensions, 12th edition, Cengage Learning India Private Limited.
2. Andrew Schotter (2009): Microeconomics: A Modern Approach- 1 st edition, SouthWestern Cengage Learning.
3. Michael E Wetzstein (2013): Micro economic Theory- Concepts and Connections, 2ndedition, Routledge.
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7. Geoffrey A Jehle (2010): Advanced Microeconomic Theory- 3 rd edition, Prentice Hall
8. Hall R Varian (2014): Intermediate Microeconomics- A Modern Approach, WW Nortonand Co.
9. Jeffrey M Perloff (2019): Microeconomics -7 th edition, Pearson
10. Hugh Gravelle and Ray Rees (2007): Microeconomics- 3rd edition, Pearson Education
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16. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: AMathematical Approach- 8th edition, McGraw-Hill
17. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1st edition, Tata McGraw-Hill.

Semester II

Course Category: Core Course 6
Course Title and Code:**Macroeconomics: Theories and Policies II, MEC2C06**
No. of Credits: 5
Total Hours: 90

I. Course Objectives

The course provides theoretical explanations for micro foundations in macroeconomics and theories of demand and supply of money. It also intends to offer analytical framework of inflation and unemployment and discusses recent advancements in macroeconomic Policies.

II. Course Outcome

1. Analyzing basic ideas of Micro economics and its learning process in Macro Economics. Explaining theoretical explanations for micro foundations in macroeconomics.
2. A clear picturization of Demand for Money and its development in different economics areas of thoughts.
3. Identify the Ideas of supply of money and different types, theories and analytical skills on Money supply with recent economic scenarios.
4. Introduce the tradeoff between inflation and unemployment through short run and long run Phillips's curve.
5. Learning of theoretical skills and ideas on Inflation and unemployment and critical awareness of those theories.
6. Introducing new perspectives of macroeconomics and learning recent advancements and studies on macroeconomics.

III. Course Outline

Module I: Micro Foundations of Monetary Theory

Classical dichotomy -Say's Identity-Say's Equality-Inconsistency between Say's law and the quantity theory of money-Walrasian system -Arrow-Debreu Model-Samuelson's overlapping generations' model

Module II: Theories of Money Demand

Inventory Theoretic Approach (William Baumol) – Liquidity Preference as Behavior Towards Risk (James Tobin) – A Restatement of Quantity Theory of Money (Milton Friedman) – The Buffer Stock Notion (David Laidler)..

Module III: Theories of Money Supply

The Concept and Measurement of High-Powered Money – Sources of Variation in High Powered Money – The Money Multiplier Model – Factors affecting Money Multiplier – Behavioral Model of Money Supply -Fisher Effect

Module IV: Inflation and Unemployment

The Phillip's Relationship – Theoretical Underpinnings of Phillip's Curve –Natural Rate Hypothesis -NAIRU– Theory of Adaptive Expectation – Expectation Augmented Phillip's Curve -Cost of Inflation-Anti-inflationary measures- Search theory-DMP Model- Okuns law-sacrifice ratio

Module V: Recent Advancements in Macroeconomic Policies

The Debate over Rules vs. Discretion – Taylor's Rule and Monetary Policy – Time inconsistency of monetary policy- Inflation Targeting – Issues Relating to Inflation Targeting

– Country Experiences with Inflation Targeting- DSGE-Dynamically Stochastic General Equilibrium.

IV. References

1. Romer, David (2006), Advanced Macroeconomics, McGraw-Hill/Irwin, NY, 3rd edition.
2. Gregory Mankiw (2008): Macroeconomics- 6th ed, Worth Publishers New York.
3. Richard T. Froyen (2008), Macroeconomics - Theories and Policies, Tenth Edition, Pearson education, New Delhi.
4. Rosalind Levacic and Alexander Rebman (1982): Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies- 2nd ed. Macmillan.
5. Eric Pentacost: Macroeconomics-An Open Economy Approach- Macmillan.
6. RudigerDornbusch, Stanley Fisher and Richard Startz (2004): Macroeconomics-, 9th ed, Tata McGraw Hill.
7. Errol D'Souza (2008): Macroeconomics- Pearson Education.
8. Fred R Glahe (1985): Macroeconomics: Theory and Policy- Harcourt Publishers, New Delhi.
9. Veneries and Sebold (1977): Macroeconomics: Models and Policies- John Wiley & Sons.
10. Gurley J and Shaw E S (1960): Money in a Theory of Finance- Washington: Brookings Institution.
11. Robert J. Gordon(2011): Macroeconomics: Addison-Wesley
12. Shapiro, Edward (1996): Macro Economic Analysis – Galgolia Publications, New Delhi.
13. Brian Snowdown,Howard Vane and Peter Wynarczyk (1994). A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought, Edward Elgar Publishing Limited, U.K.
14. Brian Snowdown and Howard Vane Modern (2005). Macroeconomics: Its Origins, Development and Current State, Edward Elgar Publishing Limited, U.K.
15. MervynK.Lewis and Paul D Mizen (2000): Monetary Economics- Oxford University Press.
16. JagdishHanda (2000):Monetary Economics- Routledge.

Semester II

Course Category:Core Course 07

Course Title and Code:**Public Finance: Theory and Practice, MEC2C07**

No. of Credits: 5

Total Hours: 90

I. Course Objective

This course enables to understand the need for government in the economy and different explanations and analyse the problem posed by externalities and how is it managed efficiently.It help students to understand different tenets of taxation as incidence, equity and

efficiency and analyse the nature of Indian tax structure and the understanding of the form of GST adopted in India.It also intends to understand the frameworkof fiscal federalism, finance commission of and various the public policies of Indian government.

II. Course Outcome

1. Students should develop familiarity with some of the crucial issues in India's fiscal policy.
2. Students should develop familiarity with some concepts in public expenditure and public revenues system in Governmental activities.
3. Students should have a thorough understanding of the history of federalism and role of government in decision making.
4. Enables them to develop their ability of logical reasoning and critical thinking in constructing arguments regarding public policy
5. Students would be able to critically evaluate use of economic policies

III. Course Outline

Module I: The Case for Public Sector.,

The role of government in economic activity-Allocation, distribution and stabilization functions- Market failure and rationale for government intervention-Concepts of private, public and merit goods-Club goods- Externalities-Tiebout hypothesis-merit goods-Pigovian tax- Property rights and Coase theorem.

Module II: Fiscal Policy and Budgeting

Traditional view of fiscal policy and its limitations-Modern view of fiscal policy-Functional finance-compensatory fiscal policy-automatic fiscal stabilizers vs Discretionary fiscal stabilizers-The link between monetary and fiscal policy-Budgeting methods**:** Performance, Planning and Programme Budgeting System (PPBS), Zero base budgeting (ZBB), relative merits and demerits – Budgetary process in India–Highlights of latest union and State budgets.

Module III: Theories of Taxation

Principles of taxation: Cost of service principle - Benefit principle - Ability to pay principle - Subjective approach and Objective approach - Shifting and incidence of tax –Theories of shifting of taxation: The concentration theory, The diffusion theory – The modern theory of demand and supply- Musgrave's modern concept of incidence of tax - Elasticity and buoyancy-Taxable capacity-Theory of optimal taxation- Laffer Curve - Balanced budget multiplier.

Module IV: Fiscal Federalism: Theory and Practice

Rationale, principles, and problems of Fiscal Federalism-Need and Mechanisms of Intergovernmental transfers - Fiscal federalism in India: Constitutional Assignment of Functions and Sources of Revenue-problems of centre-state financial relations in India - terms of reference and recommendations of latest finance commissions.

Module V: Revenue, Expenditure and Debt of Union.

Structure and problems of Indian Tax system- GST: Design and Issues in Implementation - Trend and composition of revenue of central government-Trend and composition of expenditure of central government- Trends in Fiscal deficit and deficit financing of central government- macroeconomic impact of deficit - total liabilities of central government and its composition - Debt burden and inter-generational equity - Sustainability of public debt - Domar stability condition.

IV. References.

1. Robin.W. Boadway: Public Sector Economics.
2. Due and Fridlander: Government Finance.
3. P.H.Jackson and C.V. Brown: Public Sector Economics.
4. David Hyman (2005): Public Finance- Thomson Southwestern.
5. Musgrave and Musgrave (1989): Public Finance in Theory and Practice- McGraw Hill BookCompany.
6. Richard.A. Musgrave: Theory of Public Finance.
7. Mankar: Public Finance in Theory and Practice.
8. Browning, J.M and Browning E.K (2004): Public Finance and the Price System- PearsonEducation.
9. SudiptoMundle: Public Finance: Policy Issues for India- OUP, 1997.
10. Divedi. D.N: Readings in Public Finance.
11. Duff L. (1997): Government and Markets- Orient Longman- New Delhi.
12. R.Goode (1986): Government Finance in Developing countries- Tata McGraw Hill.
13. Atkinson A and J Stiglitz (1980): Lectures in Public Economics- McGraw Hill.
14. Bailey S.J (2004): Public Sector Economics- Macmillan.
15. RagabendaraJha (1999): Modern Public Economics- Routledge, London.
16. Singh S K (1986): Public Finance in Developed and Developing Countries- S. Chand andCompany Ltd, New Delhi.
17. Rosan S Harve: Public Finance- Irwin Publications in Economics, USA.
18. John Cullis and Philip Jones (2010): Public Finance and Public Choice- Oxford.

19. S K Singh: Public Finance in Theory and Practice-S Chand Publishing.
20. Harvey Rosen and Ted Gayer (2012): Public Finance-Tata McGraw Hill.
21. Holley Ulbrich (2011): Public Finance in Theory and Practice-Routledge.

Semester II

Course Category: Core Course 08
Course Title and Code:**Quantitative Methods for Economic Analysis II, MEC2C08**
No. of Credits: 5
Total Hours: 90

I. Course Objectives

This course is the continuation of the previous course of quantitative methods and purpose is to equip the students with essential mathematical and statistical methods applicable in

economic analysis. The course focuses on probability and its distribution, the procedure of estimation and hypothesis testing. At the end of the course, students should have acquired certain skills required to analyse a sample data and to infer about the population.

II. Course outcomes

1. To understand the concept of probability and probabilit distributions.
2. To apply various probability and non-probability sampling techniques to collect the sample and to prepare sampling distribution.
3. To train the students to assign a sample statistic to a population parameter
4. To understand the procedure of hypothesis testing
5. To make data anaylsis using R programming

III. Course Outline

Module I: Continuous Probability Distributions: Concept of continuous distributions- Normal distribution- Properties, Importance and Area under normal distribution- Standard normal distribution- Lognormal distribution (concept and applications only)- Uniform(rectangular) and exponential distributions.

Module II: Sampling Distributions: Sampling distributions- Parameter, Statistic, standard error, Sample from Normal distribution: Sampling distribution of Sample mean and sample variance- Chi square distribution-Student t distribution-F distribution- Central limit theorem. (Concepts and Applications only).

Module III: Estimation Theory: Point estimation: Point estimation and Desirable properties of a good estimator-unbiasedness, consistency, sufficiency and efficiency. Interval estimation: Confidence Intervals-confidence intervals of mean, difference of means and proportion. (Concepts and Applications only).

Module IV: Testing of Hypotheses: Test of hypothesis: Null and alternative hypothesis- Type I and Type II errors- Critical region- Level of significance- Power of a test-Testing Mean of a population- Testing equality of means of two populations- Test of proportion of success of a population- Testing of equality of two population proportions- t test for the population mean- t test for the equality of two population means -Paired t test-chi-square test for independence and goodness of fit-ANOVA.
(Concepts and Applications only).

Module V: Data analysis using R package (Practical Oriented)

Random number generation from Normal, Log normal, Uniform and Exponential distributions, and the plots of the densities. Probability evaluation from standard normal, chi-square, students t and F distribution. Interval estimation for mean, difference of means and

proportions. Construction of One and two-sample tests: z test, t-test, chi-square test of independence and goodness of fit, ANOVA (one- way).

IV. Note to the question paper setter:

1. This course is meant for students of MA economics. Only conceptual and applicaiton level questions are expected from this syllabus.
2. Although module five is practial oriented, very short and short short essay type questions (1 weightage and 2 weightage) can be asked for the examination.

V. References

1. Anderson, Sweeney and Williams (2013), Statistics for Business and Economics, 12th Edition, Thomson Education.
2. Murray Spiegel, LJ Stephens and Narinder Kumar (2017). Statistics (Schaum's Outline Series). McGraw Hill Companies.
3. Taro Yamane (1973): Statistics: An Introductory Analysis- Harper & Row.
4. Hoel PG (1971): Introduction to Mathematical Statistics- John Wiley & Sons.
5. Gupta S. P (2007), Statistical Methods, Sultan Chand and Sons, New Delhi.
6. Tulsian P.C and Vishal Pandey (2002) : Quantitative Techniques- Pearson Education, New Delhi.
7. Hooda R.P (2002) : Statistics for Business and Economics- Macmillan, New Delhi.

Semester III

Course Category: Core Course 09
Course Title and Code:International Trade, MEC3C09
No. of Credits: 5
Total Hours:90

I. Course Objective

The objective of this course is to provide the basics of international trade theory and to examine the effects of international economic policies on welfare of the nations. This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy.

II. Course Learning Outcomes

1. The students get theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of various trade theories.
2. The student will be able to deal with simple algebraic and diagrammatic explanation of various trade concepts.
3. They will be able to apply partial equilibrium and general equilibrium models in analysing the economic effects of (a) trade policy instruments such as tariffs, quotas, export subsidies, (b) retaliatory measures such as anti-dumping duties and countervailing duties and (c) the creation of regional trading arrangements such as free trade areas, customs unions
4. Students evaluate how international trade promotes economic development.
5. The students understand the various international organizations which promote for economic, political and trading relationship and co-operation between countries.

III. Prerequisites

1. Macroeconomic and Microeconomic Principles
2. Competence in basic algebra and geometry

IV. Course Outline

Module I: International Trade and Economic Development

Importance of trade to development-Trade as an engine of growth-Contributions of trade to development- Terms of trade-Types- Terms of trade and economic development**.**

Module II: Developments in Trade Theories

Offer Curves- Reciprocal demand theory- Opportunity cost analysis- Factor intensity- Factor abundance-Heckscher-Ohlin Theory- Leontief Paradox- Factor intensity reversal-Factor Price Equalization Theorem- Stolper Samuelson theorem- Metzler Paradox- Economies of scale and international trade- Imperfect competition and international trade-Product differentiation and international trade- Posner's Imitation gap- Vernon's Product Cycle Theory-Leamer's and Trefler's Theorem - Kravis theory of Availability- Linder's theory of Volume of Trade and Demand pattern- Transportation cost and international trade

Module III: Economic Growth and International Trade

Growth of factors of Production and Technical Progress - The effect of growth on trade – Protrade, Anti trade and Neutral trade growth - Rybcyznski theorem- Immiserising growth- Dutch disease- Prebisch - Singer Thesis- Myrdal's view

Module IV: International Trade Policies

Import substitution versus export orientation - Trade Restrictions-Tariffs- Effect of tariff on terms of trade-Partial and general equilibrium analysis of tariff-Optimum tariff-Effective rate of protection-Non-tariff barriers-Import quotas- Effects of an import quota-Comparison of quota and tariff- Dumping and anti-dumping duties-Exchange control- Export subsidies-Countervailing tariff- Voluntary export restraints- Technical standards

Module V: Economic Integration

Economic Integration - Theories of customs union- Trade creating customs union-Trade diverting customs union-Static welfare effects of customs union-Dynamic benefits from customs union- European union-history and current status- Southern Common Market (MERCOSUR)

V. References

1. Dominick Salvatore (2014): International Economics-11th Edition John Wiley & Sons.
2. Bo Sodersten and Geoffrey Reed (2008): International Economics- Macmillan.
3. Paul. R. Krugman and Maurice Obstfeld (2009): International Economics- Pearson Education.
4. Kindleberger, C.P (2004): International Economics- R.D. Irwin, Homewood.
5. Bhagwati, J.N(Ed) (1987): International Trade: Selected Readings- MIT Press.
6. Robert J Carbaugh (2011): Global Economics- Cengage Learning.
7. Corden .W.M: Recent Developments in the Theory of International TradePrincetonUniversity Press
8. Theo Eicher, John Mutti and Michelle Turnovsky (2009): International Economics-Routledge.
9. Jagdish Bhagwati, Arvind Panagariya and T.N. Srinivasan (1998) Lectures on International Trade, MIT Press, 2nd edition.

Semester III

Course Category: Core Course 10

Course Title and Code:**Economics of Growth and Development, MEC3C10**

No. of Credits: 5

Total Hours: 90

I. Course Objectives

This course helps the students to understand the basic concepts and measurement of development and the concepts related to poverty and inequality and to analyse the reasons behind persistence of poverty and inequality in developing countries. This course also helps the students to identify problems faced by developing countries and suggest suitable policies to tackle them. It also helps to analyze the impact of development on environment

II. Course Outcome

1. This course helps the students to understand the basic concepts and measurement of development.
2. This course helps the students to learn the basic ideologies through various theories and to improve critical thinking
3. It helps the students the importance of environmental friendly development strategies

III. Course Outline

Module I: Concept and Measurement of Economic Growth and Development

Growth and development-Per capita income as a measure of development-Measuring Human Development: PQLI, HDI, GDI, Gender empowerment index-Human poverty index and deprivation index- Multi Dimensional poverty Index-World happiness Index. Inequality in income distribution: Kuznets inverted U hypothesis- Measuring inequality: Lorenz Curve and Gini-coefficient-Development as freedom-Perpetuation of underdevelopment-Structural view of underdevelopment-Vicious circle of poverty-Development Gap.

Module II: Grand Theories of Economic Growth

Theories of Adam Smith- David Ricardo- Thomas Malthus- Karl Marx and Joseph Schumpeter.

Module III: Partial Theories of Economic Growth and Development

Critical minimum effort thesis - Balanced vs unbalanced growth- Lewis's theory of Labour Supply-Fei-Ranis model- Theory of big push-Concept of dualism- Technological, social and financial- Myrdal- Backwash and spread effect- Circular and cumulative causation- Centre-periphery thesis-Todaro model.

Module IV Models of Economic Growth

Harrod- Domar growth model-Neo Classical model of Solow- Growth models of Kaldor-Joan Robinson-Convergence hypothesis-Extensions of simple growth model- Vintage

model-Dependency theory of under development- -Endogenous growth theory and role of R&D

Module V: Environment and Development

The limits to growth- The techno Centre approach- Brundtland commission approach to sustainable development-International environmental issues (Trade and environment- Rio declaration- Kyoto Protocol)-Climate-economy interaction

IV. StudentActivities

1. To identify the recourse base of Local self Government and analyse the major hurdles faced by them
2. To identify major development issues of your local self government(educated unemployment,gender issues,poverty etc)
3. To conduct a field visit to understand perpetuation of underdevelopment

V. References

1. AmartyaSen (1970): Growth Economics: Selected Readings- Penguin Books.
2. Thirlwal, A P (2011): Growth and Development with special reference to developing Economies, Palgrave MacMillan, London.
3. Todaro,Michael P and Stephen C Smith(2014): Economic Development, Pearson, NewDelhi.
4. Ghatak, Subrata (2003): Introduction to Development Economics, 4th ed, Routledge, London.
5. B.H. Dholakia, R.H. Dholakia (1998): Theory of Economic Growth and Technical Progress: AnIntroduction -Macmillan.
6. Debraj Ray (2003): Development Economics- Oxford India Paperbacks, OUP.
7. Rune Skarstein (1997): Development Theory: A Guide to Some Unfashionable Perspectives-OUP.
8. Benjamin Higgins (1976): Principles of Economic Development- Universal Book Stall, NewDelhi.
9. Meir.G M and Riuch.J.E (2000): Leading Issues in Economic Development- Oxford.
10. Ghatak, S (2003): An Introduction to Development Economics- Routledge (4th edn).
11. Irma Adelman (1961); Theories of Economic Growth and Development- Stanford UniversityPress.
12. Hywel Jones (1976): Introduction to Modern Theories of Economic Growth- McGraw-Hill.

13. Charles P Kindleberger (1958): Economic Development- Tata McGraw-Hill, New York.
14. Taneja, M L and Myer R M (2014): The economics of Development and Planning, Vishal Publishing, Punjab.
15. Hayami, Yujiro and Yoshihisa Godo (2014): Development Economics-from Poverty of nations to the wealth of Nations, Oxford University Press, New Delhi.
16. Perkins, et al (2001): Economics of Development, W.W Norton Company, USA.

Semester III

Course Category: Core Course 11
Course Title and Code:**Econometrics Theory and Applications, MEC3C11**
No. of Credits: 5
Total Hours: 90

I. Purpose &Course objectives

Econometrics is the statistical and mathematical analysis of economic relationships and this course provides an introduction to the methods of econometric analysis and their application. It presents some of the basic methods used in empirical research and enables students to gain understanding and practical experience so as to enhance the ability for good quality empirical work and critical evaluation of research results.The purpose of the course is to help students learn to use econometric methods in analysing economic data, verifying empirical economic relationships and to make acquainted with various econometric techniques employed in not just economics, but increasingly, all social science and market research.

The course exclusively focuses on econometric methods and applications intended for analysing cross-section data. The course is designed to motivate the students to learn specification, estimation and evaluation of simple and multiple regression model in general and the violations of assumptions of OLS in particular. Upon completion of the course, students should have acquired certain skills required to conduct a small-scale econometric investigation using econometrics software and to write an accurate and complete report of its methodology and results.

II. Course outcomes:

1. To understand the subject matter and importance of econometrics, and various steps which are to be followed in an econometric investigation.
2. To provide the method of OLS, its assumption and properties to give a concrete base of econometrics.

3. To apply simple and multiple linear regression to a cross-section data and to evaluate and interpret the results
4. To construct a dummy variable to capture the effect of a qualitative variable in an econometric model, and its estimation and interpretation.
5. To gain knowledge on how to detect and treat violations of OLS assumptions and to explain the problems that arise when the assumptions of OLS are not valid
6. To demonstrate all the methods using an econometric/spreadsheet package

III. Course Outline

Module 1 –Introduction to Econometrics

1. Econometrics: Definition, History, Uses and Importance, Examples of Econometrics Problems-Types of Econometrics, software in Econometrics
2. Methodology of Econometrics: Theoretical Formulation-Specification stage: Deterministic v/s stochastic-Data collection: cross-section, time series, panel and pooled cross-section- Estimation Stage-Evaluation and Prediction
3. Statistical Pre-requisites for Econometrics: Random Variables, Σ Notation, Expectation, Variance and Covariance

Module 2: The Classical simple Linear Regression Model

1. Introduction to regression: Simple Linear Regression Model, Conditional and Unconditional Expectation- Population and sample regression function
2. Notations and Explanations in regression model: The nature of Dependent and independent Variable-Scale of Measurement of variable-The Nature of Error Term-Parameter
3. The method of Ordinary Least Square Estimation (OLS): Derivation with intercept and without intercept (Regression through origin)-Assumptions and Properties of OLS estimators-Gauss Markov Theorem-Precision of OLS Estimators-Goodness of fit of the model (r^2)
4. Statistical inference in SLRM: Hypothesis testing, testing the individual coefficient (t-test), Decision based on Confidence interval and 'p' value approach, Analysis of Variance on OLS regression

Module III:The Classical Multiple Linear Regression Model

1. Multiple linear regression model: Three variable regression model-precision of OLS estimators- Goodness of fit (R^2 and adj R^2)- testing the joint significance of coefficients (F-test)-Model Selection Criteria- Testing the relevance of an additional explanatory variable

2. Functional Forms: Log linear and semi log models
3. Interpretation of multiple linear regression model-Implications of some frequently observed practical cases

Module IV–Qualitative Explanatory variable Regression Models

1. Nature, Estimation and interpretation of Dummy Variable Regression-Construction of Dummy Variable (Simple and multiple category)-Dummy Variable Trap
2. Regression with qualitative independent variable (ANOVA)-Regression with qualitative and quantitative Model-(ANCOVA)-Interaction Effects using Dummy variable
3. Uses of Dummy variable in structural change, seasonal analysis and Piece-wise linear regression

Module V-Critical Evaluation of Classical Linear Regression Model

1. Regression Diagnostic I- Multicollinearity: Sources, consequences, detection (VIF and TOL) and remedial measures
2. Regression Diagnostic II- Heteroscedasticity: Sources-consequences, detection (Park test, Glejser Test, Spearman Rank correlation test, Gold-Quandt test, Breusch pagan Godfrey Test) and remedial measures -Generalized Least Square Method (GLS) and Weighted Least Square (WLS)
3. Regression Diagnostic III-Autocorrelation: Sources, Consequences, detection (Runs Test, Durbin Watson test and Breusch Godfrey test) and remedial measures
4. Regression Diagnostic IV-Model Specification Errors: Omission of relevant variable-Ramsey's RESET test, Lagrange Multiplier Test- Inclusion of an irrelevant variable-Mis-specification of functional forms- Errors of Measurement

IV. Textbooks: Required and Recommended

1. Asli K. Ogunc & R. Carter, Using Excel for Principles of Econometrics, Third Edition, Hill, John Wiley & Sons
2. Chris Brooks, Introductory Econometrics for Finance, Third Edition, Cambridge University Press
3. Christopher Dougherty, Introduction to Econometrics, Fourth Edition, Oxford University Press
4. Damodar Gujarati, Basic Econometrics, McGraw Hill

5. Damodar Gujarati, Econometrics by Examples, Palgrave
6. Dominick Salvatore and Derrick Reagle, Statistics and Econometrics, 2nd edition, Schaum's Outline Series
7. G.S Maddala, Introduction to Econometrics, McMillan Publication
8. Humberto Barreto & Frank M Howland, Introductory Econometrics Using Monte Carlo Simulation with Microsoft Excel, Cambridge Publication
9. Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach, Cenegage Learning
10. Peter Kennedy, A Guide to Econometrics, Blackwell Publication
11. Sankar Kumar Bhaumik, Principles of Econometrics: A Modern Approach using EViews, Oxford
12. William H. Greene, Econometric Analysis, Pearson
13. William E. Griffiths, R. Carter Hill, and George G. Judge, Learning and Practicing Econometrics. Toronto: John Wiley & Sons

V. Course Format

The course is based on 300-minute lectures per week. The topics will be covered by lecture sessions along with hands on practical training using databases and computer software such as MS Excel and E-Views. All topics will be illustrated using real data sets obtained from different data sources.

1. **Assignments:** Two comprehensive assignment will be given during the term. These assignments will require students to perform small econometric tool using software that apply the various econometric methods and practices covered in the course. Students have to do their assignments individually on separate topic. The assignments will be goal-specific rather than task-specific in nature.
2. **Seminar:** The students are required to present one assignment as seminar using computer aids.
3. **Continuous Assessment Test:**A descriptive or open book exam will be given in class during the10th week of the term, on a date to be arranged. The exam will test students' knowledgeand understanding of the important econometric principles, methods and practices coveredin the course. The second test will be based on the entire syllabus
4. **Activities**

   Apart from assignment different activities will be given in order to make the students acquainted practicability of various econometric tools.

Semester IV

Course Category: Core Course 12
Course Title and Code:**International Finance, MEC4C12**
No. of Credits: 5
Total Hours: 90

I. Course objectives:

The course aims to introduce postgraduate students to basic theorems of exchange rate determination and exchange rate market. The course also intends to develop analytical knowledge on Macroeconomic Policy in an Open Economy and Present International Monetary System.

II. Course outcome

1. Imparting knowledge of exchange rate market and basic theorems of exchange rate determination, interest rates and demonstrating knowledge of foreign exchange hedging to identify and manage the foreign exchange risks faced by globally active firms.
2. Demonstrate the ability to select global financing strategies according to the changes in exchange rate and international monetary frame work
3. Developing analytical knowledge on Macroeconomic Policy in an Open Economy and ability to connect with present economic scenario.
4. To acquire thorough understanding of Present International Monetary System and develop anlytical skills by connecting various international issues.

III. Course Outline

Module I: Foreign Exchange Markets

Meaning, Structure and functions of foreign exchange markets; Types of foreign exchange transactions; interbank market, spot and forward, options market, futures market, exchange trading, arbitrage, market hedging and speculation

Module II: Exchange Rate and Theories of Exchange Rate

Exchange rate-Nominal, Real, Nominal Effective Exchange Rate, Real Effective Exchange Rate- Exchange rate systems- Relative merits and defects of fixed and flexible exchange rates- Hybrid exchange rates- Managed Exchange rate -Purchasing power parity theory- Monetary approach- Asset market (portfolio balance) model- Exchange rate overshooting.

Module III: Balance of Payments and Policy Adjustments

Balance of payments- Components- Accounting Principles- Basic balance- Overall balance of payment- Accounting balance of payment- Autonomous and Accommodating transactions- BoP Surplus and deficit- BoP Adjustment and Settlement-Automatic adjustment with flexibility in prices, interest rates and income - The process of adjustment under flexible and fixed exchange rate system- Devaluation-Elasticity approach- Marshall-Lerner condition- Absorption Approach- J curve effect

Module IV: Macroeconomic Policy in an Open Economy

The problem of Internal and external balance- Expenditure changing and expenditure switching policies- Swan diagram - The Mundell-Fleming Model – Derivation of IS, LM and BP Curves for an open economy- Equilibrium of the model- Factors shifting IS, LM and BP Curves - Internal and external balance under fixed and floating exchange rate regime – A small open economy with perfect capital mobility- Principle of effective market classification- Limitations of the Mundell-Fleming Model

Module V: International Monetary System

The gold standard and its breakdown- Bretton Woods system: Operation and its breakdown- Present international monetary system: operation and problems- Financial crisis in emerging market economies- European monetary union- Creation of the Euro- Optimum currency areas- Currency boards- Dollarization- Brexit.

IV. References

1. Keith Pilbeam: International Finance-Macmillan.
2. Bo Sodersten and Geoffrey Reed: International Economics- Macmillan, London.
3. Paul R Krugman and Maurice Obstfeld: International Economics: Theory and Practice-Pearson Education, Singapore.
4. Thomas A. Pugel: International Economics- TMH.
5. Keith Pilbeam: Finance and Financial Markets- Palgrave.

6. Dennis R Appleyard and Alfred J Field: International Economics-McGraw Hill.
7. Robert J Carbaugh (2011): Global Economics- Cengage Learning.
8. Giancarlo Gandolfo: International Finance and Open Economy Macroeconomics-Springer.
9. Lawrence Copeland: Exchange Rates and International Finance-Pearson Education.
10. M Levi: International Finance-McGraw Hill.
11. Richard Caves, Jeffrey Frankel and Ronald Jones: World Trade and Payments-Pearson Education

Semester IV

Course Category: Core Course 13
Course Title and Code: **Financial Economics, MEC4C13**
No. of Credits: 5
Total Hours: 90

I. Course Objective

The course aims to introduce various theories and tools of investment decision making. The course elaborates important principles and methods of valuation of bonds and stocks.Various principles of portfolio management and training and pricing mechanisms of derivatives are also included.

II. Course Outcome

The students should be able to calculate time value of money and also the return from investment in various kinds of financial assets. They also should be able assess the risk return tradeoff of various financial assets using the financial data sets from NSE and BSE. Students are also expected to analyze the hedging effectiveness of derivative instruments using the data of commodity exchanges.

III. Course Outline

Module I: Financial Economics

Defining Finance-Why study Finance-Financial Decision of Household and Firm-Financial system, flow of funds and Functions of Financial System-Financial markets, financial market rates, instruments, intermediaries and regulation- Financial statement-balance sheet and income statement-Market value v/s Book Value-Financial ratios

Module II: Allocating Resource over Time

Compounding and Future Value- Intra Year Compounding and Effective interest rate - Discounting and Present Value -Intra Year Discounting–Investment Decision Rules: Net Present Value and Internal rate of Return - Investing in land- PV and FVof Annuities: - Loan amortization-exchange ate and time value of money-inflation and discounted cash flow analysis-taxes and investment decision

Module III: Principles of Market Valuation

Asset's value and its price-Law of one price and arbitrage-Valuation of Bonds- Bond prices - Current yield - Yield to maturity- Yield to Call - Risks in Debt –ShareValuation -Dividend Discount Models - Earning Multiplier Approach - Technical analysis – Fundamental Analysis -Efficient market hypothesis.

Module-IV Principles of Risk Management

Risk and risk management-risk management process-Three dimensions of Risk transfer: hedging, Insuring and Diversifying-Financial derivative-The social role of financial derivative-Forward and Futures contract to Hedge Risk-Portfolio theory of optimal risk management- probability distribution of return and measuring risk-Trade-off between Expected return and risk-problem with modern portfolio theory

Module V Forward and Futures Market

Forward and Future contracts- Futures contracts and futures trading-order flow-clearing house and its function-Fulfilment of Futures Contracts-Delivery-Reversing Trades-Cash settled trades-futures price quotations-Futures pricing-the cost-of-carry model in perfect markets-the cost-of-carry model in imperfect markets

Module VI Option Trading

Option- meaning and types, Option terminology, Option pricing-The pricing of call options at expiration, Option values and profits at expiration, Relationships between call option prices Call options as insurance policies-the put-call parity relation-The option pricing model-the black- Scholes Model-Option sensitives-Delta – Gamma – Vega Theta – Rho -Gamma

IV. Activities

1. Quiz on stock market
2. Tracking a stock (Use Yahoo finance/ Google finance)
3. Calculation of risk and return (data from NSE or BSE)
4. Construction of portfolio
5. Analysis of Hedging effectiveness of derivative instruments.

V. References

1. ZviBodie, Robert C Merton and David L. Cleeton (2012). Financial Economics, second Edition, Pearson Education
2. David A. Dubofsky and Thomas W. Miller (2003), Derivatives: Valuation and Risk Management, OUP.
3. J. Cvitanic and Zapatero F (2004), Introduction to Economics and Mathematics of Financial Markets, MIT Press, Cambridge, London.
4. Prasanna Chandhra (2017). Investment Analysis and Portfolio Management.MacGraw Hill Education (India) Private Limited.
5. S Kevin (2015). Security Analysis and Portfolio Management. Prentice Hall of India Private Limited.
6. E. J. Elton and M.J. Gruber (1995), Modern Portfolio Theory and Investment Analysis, Wiley, London.
7. Z. Bodie, A. Kane and A.J. Marcus (2004), Investments, Irwin McGraw – Hill, London.
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9. J. C. Hull (2004). Options, Futures and other Derivatives, Prentice- Hall, New Jersey.
10. Kohn M (2004). Financial Institutions and Markets, 2nd Edition, Oxford University Press,
11. Miller, M (1991). Financial innovations and Market volatility. Cambridge: Blackwell,
12. Fraser, L, and A. Ormiston (2007). Understanding Financial Statements, 8th edition, Person Prentice Hall,
13. Wild, Subrahmanyan, and R. Halsey (2006). Financial statement Analysis, 9thed, New York: McGraw –Hill
14. Fama, E.F.(1970). "Efficient Capital Market: A review of theory and Empirical work" Journal of Finance 25, May.
15. Anthony Santomero and David Babbel (2001): Financial Markets, Instruments and Institutions- McGraw Hill Higher Education.
16. Keith Pilbeam (1998): Finance and Financial Markets- Palgrave.
17. Anthony Saunders and Marcia Millon Cornett (2007): Financial Markets and Institutions: A Modern Perspective- TATA McGraw Hill.
18. Fabozzi, Modigliani, Jones and Ferri (2002): Foundations of Financial Markets and Institutions- Pearson Education.
19. Jeff Madura (2008): Financial Markets and Institutions-Cengage Learning.
20. Stephen Valdez and Julian Wood (2003): An Introduction to Global Financial

Markets- Palgrave Macmillan.
21. John C Hull (1995): Introduction to Futures and Options Markets -Prentice Hall India.
22. Sunil K Parameswaran (2003): Futures Markets- Tata McGraw Hill.
23. Keith Cuthbertson Dirk Nitzsche, Quantitative Financial Economics: Stocks, Bonds and Foreign Exchange, John Wiley & Sons Inc
24. Chakravarty Satya R Chakravarty, An Outline of Financial Economics, Anthem Press
25. Bianconi, Marcelo Bianconi, Financial Economics, Risk and Information: An Introduction to Methods and Models, World Scientific Publishing Co Pte Ltd
26. Jan Werner Stephen F LeRoy Werner Le Roy, Principles of Financial Economics, Cambridge University Press
27. Zhou Neave Fabozzi, Financial Economics, Wiley

ELECTIVE COURSES

Sl No	Code	Course	Credits	Hours
1	MEC3E01	Research Methodology and Computer Applications	4	6
2	MEC4E02	Advanced Econometrics	4	6
3	MEC4E03	Environmental Economics	4	6
4	MEC4E04	Political Economy of Development	4	6
5	MEC4E05	Contribution by Nobel Laureates	4	6
6	MEC4E06	Gender Economics	4	6

Semester III

Course Category: Elective Course 1

Course Title and Code: **Research Methodology and Computer Applications, MEC3E01**

No. of Credits: 4

Total Hours: 90

I. Course objectives:

The course aims to introduce postgraduate students to the importance of research methodology and various computer applications which required for economic research and data analysis. They should be equipped with the ability to understand and participate in the process of economic research. The Students will be able submit their project reports in a systematic manner. Proficiency in EXCEL and STATA software will help them to do the data analysis smoothly.

II. Course outcome

1. To conduct scientific research in the field of economics using secondary and primary data
2. To develop essential data handling skills using excel and STATA software.
3. To acquire thorough understanding of data analysis, statistical tools and research methodology that facilitate transition to higher research programs and careers in data anlayis.

III. Course Outline

Module I: Fundamentals of Research Methodology

Meaning, Objectives, Types and Significance of Research- Research Method vs Methodology-Steps of research process-Various approaches of Research-Criteria of Good Research- Writing a Research Proposal

Module II: Formulation of Research Problem

Steps in formulating a research Problem - Formulating objectives- Operational definitions –

Identification of Relevant Variables- Converting concepts in to variables- types of variables: nominal-ordinal-interval-and ratio- Review of Literature: Importance and procedure- Note Taking

Module III: Research Design and Sampling Design

Research Design: Meaning, Need and Features – Types of Research Designs: Exploratory research design- descriptive and diagnostic research design- experimental research design and its various types-– Census and Sample Survey - Meaning of Sampling Design – Steps in developing sampling design – Sampling Methods – Probability and Non-Probability Sampling Methods – Measurement of scales: Rating, Ranking, Arbitrary, differential, summated, cumulative and factor scales -Methods of Collecting Primary data: Personal Interview, Questionnaires and Schedules

Module IV: Report Writing and Structure of the Research Report

Plagiarism, types and detecting methods- APA Style: Page setup, Punctuations and Basic Rules, Citation in single and multiple authors' case, Referencing style in single and multiple authors' case) -Reference Manager and use of Mendeley software - Structure and Technical Aspect of Research Report

Module V: Basic Data Analysis Using Excel

Excel Fundamentals – Simple Operators and Statistical Functions – Charts in Excel – Data Analysis Tool Pak: Estimation of Descriptive statistics, Correlation and Regression – Forecasting: Linear and Non-Linear Trend Lines – Moving Averages – Estimation of Simple, Instantaneous and Compound Rates of Growth.

Module VI: Data Analysis using Stata

Introduction to Stata: Stata do files, Data files, Data editor, Log files - Importing and exporting data- Summarizing and analyzing data - Modifying data sets: rename, replace, drop, gen, egen,- Collapsing and merging data sets-Descriptive statistics- Graphs in Stata-Frequency Tables and Cross tabs-Correlation and Regression – Hypothesis Testing in Stata – One Sample *t*- test – Independent Samples *t*- test – Paired *t*- test – One way ANOVA – Chi-Square Test.

IV. References

1- Lee C. Adkins (2014), Using Gretl for Principles of Econometrics, 4th edition.
2- William J Goode and Paul K Hatt (1981): Methods in Social Research- McGraw-Hill.
3- Pauline V Young: Scientific Social Surveys and Research- Prentice Hall India Pvt Ltd.

4- W Lawrence Neuman (2006): Social Research Methods: Quantitative and QualitativeApproaches- Pearson.
5- Wilkinson and Bhandarkar (2002) Methodology and Techniques of Social Research-Himalaya Publishing House.
6- Marc Blaug: The Methodology of Economics, or How Economics Explain-CambridgeUniversity Press.
7- Modern Language (2009) The MLA Handbook for Writers of Association of America,Research Papers.
8- Sarma KVS (2001): Statistics Made Simple: Do it Yourself on PC- Prentice Hall India Pvt.
9- C R Kothari (2004), Research Methodology: Methods and Techniques- New Age International, New Delhi
10- Ranjith Kumar (2011), Research Methodology a Step- by- Step Guide for Beginners, Sage Publications New Delhi.
11- Mario F. Triola (2013), Elementary Statistics Using Excel, 5th Edition, Pearson.
12- Andy Field (2006), Discovering Statistics using SPSS, Sage Publications, New Delhi.
13- Ajai S. Gaur and Sanjaya S Gaur (2010), Statistical Methods for Practice and Research, A guide to data analysis using SPSS, Sage Publications, New Delhi.
Vijay Gupta SPSS for Beginners, VJ Books Inc.
14- An Introduction to Modern Econometrics Using Stata by Christopher F. Baum (Stata Press: ISBN-13: 978-1-59718-013-9)
15- An Introduction to Stata Programming, also by Christopher F. Baum (Stata Press: ISBN 978-1-59718-045-0).

V. Students' Activities

1. Write an commentory article about contemporary economic event (national or global) and submit to any standard journal such as Economic and Political Weekly.
2. Collect primary data on any specific topic and present it using pivot table in excel and stata package.
3. Submit two chapter of the MA Project as a part course Assignment.

Semester IV

Course Category: Elective Course 2
Course Title and Code: **Advanced Econometrics, MEC4E02**
No. of Credits: 4
Total Hours: 90

I. Purpose & Learning objectives

The course 'Advanced Econometrics' provides some intermediate and advanced methods of econometrics and it presents few dynamic, simultaneous and time series econometric model used in empirical economic research. The aim of this course is to provide the students with the skills helpful in filling the gap between being "a student of economics" and being "a practicing economist." The course focuses much on econometric methods and applications intended for analysing time series data. The course is designed to motivate the students to learn estimating different types of dynamic, simultaneous and qualitative response models, problems in estimating time series, panel and high frequency econometric models and forecasting economic variable in a univariate and multivariate framework.

At the end of this course, students should have learned certain skills required to conduct an econometric study using lagged and endogenous variable and also to do a time series and panel data analysis using some econometric/spreadsheet package. The students will be trained to write a good quality graduate research paper in economics using the econometric methods taught in this class

II. Learning outcomes:

7. To understand the problems with a single equation model and various methods to estimate simultaneous equation models.
8. To learn the importance of lagged variable in economics and different econometric methods to estimate dynamic econometric models.
9. To construct a dummy variable for dependent variable and to comprehend its estimation and interpretation.
10. To understand the properties of time series data and how its estimation procedures are different from cross-section models.
11. To gain knowledge on some widely used time series models in economics and finance
12. To introduce panel data models to the students.

III. Course Outline

Module I: Simultaneous Equation Models

1. Single v/s simultaneous Equation Models-Simultaneous Equation & Recursive System- Consequences of Simultaneity bias

2. Structural and Reduced forms of equations – Identification: Order and Rank Conditions
3. Hausman Specification test of Endogeneity and exogeneity
4. Estimation of Simultaneous equation model: Indirect Least Squares (ILS), Two stage Least squares (2SLS)

Module II: Dynamic Econometric Models

1. Static v/s Dynamic Econometric Model: Distributed Lag model (DLM)-Autoregressive Model (ARM)-Importance of Lag in Economics
2. Estimation of Distributed Lag model: Ad Hoc Estimation procedure, Geometric lag model (Koyck), Adaptive expectation and Partial Adjustment Model-Almon's Polynomial Model
3. Estimation of Autoregressive Model: OLS and its consequences, The Method of Instrumental Variable (IV Method)-The Durbin Watson 'h' Test-

Module III: Limited Dependent Variable Models

4. Nature of Qualitative Response Regression Models - The Linear Probability Model (LPM) –The Logit and Probit Model.

Module IV: Introduction to Time Series Econometrics

1. Time series data its problem-Stochastic Processes-Stationary versus non-stationary stochastic Processes- Random Walk Model-
2. Tests of Stationarity-Graphical analysis-Correlogram Test-Unit root test: Dickey Fuller and Augmented Dickey Fuller tests
3. Trend stationary versus difference stationary- Properties of Integrated Seriess
4. Spurious regression-Cointegration: Engel Granger Test– Simple Error Correction Model

Module V: Selected Topics in Time Series Econometrics

1. Univariate Models: Autoregressive Process (AR) - Moving Average Process (MA) - ARMA and ARIMA Processes - The Box – Jenkins (BJ) Methodology
2. Multivariate Models: Vector Auto-regression: Specification, Estimation and Forecasting-Impulse response function and Variance Decomposition Method - Causality Test: Granger Causality Test
3. Volatility Modelling: Financial Time Series: Need of modelling risk, Variance as a measure of volatility, ARCH/GARCH Model for modelling volatility

Module VI: Introduction to Panel Data Regression Model:

1. Types of panel Data,

2. Panel data Models: Constant Coefficient Model (CCM), The Fixed Effects Model (FEM)-The Random Effects Model

IV. Textbooks: Required and Recommended

1. B.H Baltagi (2013). Econometric Analysis of Panel Data, Wiley, 5th Edition.
2. Chris Brooks, Introductory Econometrics for Finance, Third Edition, Cambridge University Press
3. Damodar Gujarati, Basic Econometrics, McGraw Hill
4. Damodar Gujarati, Econometrics by Examples, Palgrave
5. Dominick Salvatore and Derrick Reagle, Statistics and Econometrics, 2nd edition, Schaum's Outline Series
6. G.S Madalla (2013). Limited-Dependent and Qualitative Variables in Econometrics. Cambridge University Press.
7. Gusti Ngurah Agung (2009), Time Series Data Analysis Using Eviews, Wily
8. Hamilton, J. D (1994). Time Series Analysis, Princeton University Press.
9. Humberto Barreto & Frank M Howland, Introductory Econometrics Using Monte Carlo Simulation with Microsoft Excel, Cambridge Publication
10. Kerry Patterson (2000). A Introduction to Applied Econometrics, A Time Series Approach, St. Martin's Press, New York,.
11. Marno Verbeek (2004), A Guide to Modern Econometrics, John Wiley
12. Peter Kennedy, A Guide to Econometrics, Blackwell Publication
13. Sankar Kumar Bhaumik, Principles of Econometrics: A Modern Approach using EViews, Oxford
14. Walter Enders (2006). Applied Econometric Time Series, Second edition, John Wiley and Sons.
15. William E. Griffiths, R. Carter Hill, and George G. Judge, Learning and Practicing Econometrics. Toronto: John Wiley & Sons

V. Course Format

The course is based on 300-minute lectures per week. The topics will be covered by lecture sessions along with hands on practical training using databases and computer software such as MS Excel and E-Views. All topics will be illustrated using real data sets obtained from different data sources. Apart from these students are required to work on a research paper that involves some advanced econometrics methods.

1. **Assignments:** Two comprehensive assignment will be given during the term. These assignments will require students to perform advanced econometric tool with the help of

any econometric software. Students have to do their assignments individually on separate topic.

2. **Seminar:** The students are required to present one assignment as seminar using computer aids.
3. **Continuous Assessment Test:** A descriptive and a practical exam will be given in class, on a date to be arranged. The descriptive exam will test students' knowledge and understanding of the important econometric methods while the practical exam test students ability to perform an econometric exercise.
4. **Activities**

   Apart from assignment different activities will be given in order to make the students acquainted practicability of various econometric tools. Students need to carry out out an Empirical Project using Econometrics Methodology- Selecting a Topic, Review of Literature, Formulating a General Model, Empirical Analysis

Semester IV

Course Category: Elective Course 3
Course Title and Code: **Environmental Economics, MEC4E03**
No. of Credits: 4
Total Hours: 90

I. Course Objectives

This course aims to familiarize with issues related to the environment and they try to find innovative ideas to overcome the problems. And also aimsto identify different economic theories and apply those in to environmental issues and develop an environmental protection initiative among students

II. Course Outcome

1. Students should be familiar with issues related to the environment and they try to find innovative ideas to overcome the problems
2. The course helps to identify different economic theories and apply those to environmental issues.
3. It helps to develop environmental protection initiatives among students.
4. It helps to create and implement various policies regarding nature protection.

III. Course Outline

Module I: Introduction to Environmental Economics

Environmental Economics – origin – development – Scope – Ecology and eco systems - Material balance model - Economics of natural resources - relationship between environment and economy – Resources taxonomy – renewable and non-renewable resources – common property resources – tragedy of commons.

Module II: Externalities, Market Failure and Environmental Valuation

Public Goods – Externality – Market Failure – Pigovian Tax and Subsidies – Property rights and Coase theorem – valuation of environmental benefits and costs – direct and indirect methods of environmental valuation – cost benefit analysis – Net Present value – Contingent valuation method – travel cost method – hedonic price method – Averting expenditure method – market and non market benefits of pollution control – Environmental impact Assessment

Module III: Environmental Policy

Instruments of Environmental Policy - CAC – price based and quantity based instruments permit system – Choice among policy instruments – The Indian experience – Criteria for evaluating environmental policies - environmental regulations and local economic activity

Module IV: Development, Trade and Environment

Development, Poverty and Environment – Population and Environment – The quest for sustainable development – indicators and measurement of sustainable development – Environmental Justice – Economics of Biodiversity

Module V: Environment and development

Environmental standards and international trade – global pollutants and international environmental agreements – The global environmental issues – green house gases and global warming – climate change and global agreements – Kyoto protocol – Montriel Protocol – Environmental Kuznets' Curve.

VI. References

1. Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, (2nd Edition),Cambridge University Press, Cambridge.
2. Bromely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Blackwell, London.
3. Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
4. Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory andPractice, Macmillan.
5. Hussen, A.M. (1999), Principles of Environmental Economics, Routledge, London.
6. Jeroen, C.J.M. van den Bergh (1999), Handbook of Environmental and Resource Economics,Edward Elgar Publishing Ltd., U.K.
7. Kolstad, C.D. (1999), Environmental Economics, Oxford University Press, New Delhi.
8. Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment,John Hopkins University Press, Baltimore.
9. Perman, R. Ma and J. McGilvary (1996), Natural Resource and Environmental Economics,Longman, London.
10. Sankar, U. (Ed.) (2001), Environmental Economics, Oxford University Press, New Delhi.
11. Tietenberg, T. (1994), Environmental Economics and Policy, Harper Collins, New York.
12. Jonathan M. Harris, Houghton- Mifflin (2006) Environmental and Natural ResourceEconomics: A Contemporary Approach, Second Edition

13. “How Economists See the Environment,” Don Fullerton and Robert Stavins, Chapter 1 ofEconomics of the Environment: Selected Readings, edited by Robert Stavins (p. 3-8).
14. “Global Overview,” Chapter 1 of UNEP Yearbook 2008: An Overview of Our ChangingEnvironment, United Nations Environment Programme (p. 4-13).
15. “The Economics of Global Climate Change,” Jonathan Harris and Brian Roach,2007.
16. Katar Singh and Anil Shishoda(2008) Environmental Economics: Theory and Applications,Sage India.
17. Tirpathy, S.M. and Sumakar Panda, Fundamentals of Environmental Studies, VrindaPublications, Delhi

Semester IV

Course Category: Elective Course 4

Course Title and Code:**Political Economy of Development, MEC4E04**

No. of Credits: 4

Total Hours: 90

I. Course Objective

This course aims to introduce students to the basics of the core areas of philosophical thinking, the issues and concerns for the development of economics from political economy and inculcate the knowledge of developmental stages of economics from political economy. It also intends to acquaint them with important aspects political economy with the help of historical analysis and develop an in-depth understanding of the developmental path of economics.

II. Course Outcome

1. Students are expected to be understood how history, culture, and customs impact an economic system.
2. The students should analyse the development of economics as a separate branch from political economy.
3. The course will also help to shape international economic interactions and its recent developments undertaken

III. Course Outline

MODULE I: Introduction to Political Economy

Definition, subject matter and scope of political economy-mode of production and social formations – periodisation of history: Marxian and Non-Marxian approach- Third world social formation- Robert Cox theory of Historical structure

MODULE II: Theories of Value

Theory of value: Physiocrats –Marcantalist – Ricardo – Neoclassical – Sraffa's contribution to the theory of value- Marx

MODULE III: Capitalist Controversy

Capital controversy – Central issue in capital theory – problems of measurement of capital – malleable and non malleable capital, Neo classical parables – negation of neo classical parables – switching re-switching of techniques – Wicksell effect

MODULE IV: Marxian Economy

Marxian schemes simple and expanded reproduction – transformation of value into prices – capitalist crisis theories.

MODULE V: Theories of Imperialism

Monopoly capitalism – theories of imperialism – unequal exchange and the economic under development – political economy of world capitalism and globalization.

IV. Reference:

1. Paul M Sweezy, Theory of capitalism development, K P Bapchi and Co., Culcutta.
2. Dacosta GC, Value and distribution, Himalaya publishing company, New Delhi
3. Haward and King, the political economy of Marx, Orient longman.
4. Charles A Baron, Marxist thought on imperialism, survey and techniques, Macmillian.
5. Paul Baren and Paul M Sweezy, Monopoly capital, Hardmond worth, penguin
6. Renjith Sau, Unequal exchange, Imperialism and under development, Macmillian.
7. Prabhat Patnaik, whatever happened to imperialism and other essays.
8. P. Sraffa, Production of commodities, by means of commodities.
9. K.S Chalam, Readings in Political economy, Orient longman, Hyderabad.

Semester IV

Course Category: Elective Course 5

Course Title and Code:**Contribution of Nobel Laureates, MEC4E05**

No. of Credits: 4

Total Hours: 90

I. Course Objectives

This course intends to introduce the contributions of Nobel Prize winning economists in sequential order. Also helps the students to connect their contributions with other works in economics and encourage a critical thinking.

II. Course Outcome

1. To introduce the contributions of Nobel Laureates in economics in sequential order.
2. To encourage analytical and critical thinking on the areas and theories of Nobel Laureates in economics

III. Course Outline

Module I: Nobel Laureates 1969-1975

Ragner Frisch and Tinbergen and analysis of Economic Process- Paul Samuelson's static and dynamic economic theory- Simon Kuznet for his empirically founded interpretation of economic growth and development- John Hicks and Kenneth Arrow and their analysis on General economic equilibrium and welfare theory

Module II: Nobel Laureates 1975-1990

Militon Friedman and his analysis on consumption and monetary theory- Bertin Ohlin and James Meade and the theory international trade and capital movement-Arthur Lewis&Theodore Schultz for their economic development-James Tobin, Fanco Modigliani for their analysis of financial market.-Robert Solow for his contributions to the theory of economic growth

Module III: Nobel Laureates 1990-2000

Ronald Coase and his contribution in Transaction cost and property rights-Robert Fogel and economic and institutional change-Robert Lucas and rational expectation- AmertyaSen's contribution to welfare economics- Robert Mundel and his contribution

Module IV: Nobel Laureates 2000-2010

Market with asymmetry and contribution of Akerloff and Stiglitz- Robert Engel and Clive Granger and their contribution to analysis of Time series data- Kydland and Prescort contributions to dynamic macro economics- Edmund Phelps and his analysis of inter temporal trade-offs in macroeconomic policy- Paul Krugman and trade pattern

Module V: Nobel Laureates 2010-till date

Market with Search Friction: contributions of Diamond, Mortensen and Pissarides- Contribution of Thomas Sergent and Christophe Sims on empirical research- Agnus Deaton and his analysis on consumption, poverty and Welfare-Contribution by the latest Nobel laureates-

IV. Student Activities

1. Prepare the life history of any one of the Nobel laureates
2. Prepare a magazine of the contributions of Nobel Leaurates
3. Commemmorate the birth days of prominent Nobel Leaurates

V. References

1. Lindbeck, Assar(Ed) (1992). Nobel lectures in economic sciences 1969-1980, World Scientific, London,
2. Maler, Karl-Goram (ed) (1992)., Nobel lectures in economic sciences 1981-1991, World Scientific, London.
3. Puttaswamaiah, Nobel Economists, Vol 2, 1975-85, Indus Publishing Company, New Delhi

Semester IV

Course Category: Elective Course 8
Course Title and Code:Gender Economics, MEC4E06.
No. of Credits: 4
No. of Contact Hours: 90

I. Course Objective

The course intends to introduce the students, the nature and importance of Gender Economics and also to make aware the students about the concepts and laws related to gender equality. It helps the students to develop the attitude and ability to preserve the concept of gender equality in the society and to make capable of the students to suggest and practice certain measures for protecting gender equality

II. Course Outcomes

1. Students would understand the different concepts, demography of female population in the nation and the relevance of different family systems
2. Students would be able to know about the peculiarities of female labour market
3. Students become aware about the tools used in empowerment of women and also know about the role of different agencies regarding Women empowerment
4. Enable students to know about the social security measures taken by the govt through constitution in order to enhance the entitlements and to enhance the capabilities of women
5. To equip the students with the knowledge of national and international laws for women's rights

III. Course Outline

Module I: Introduction to Gender Studies

Concepts of gender and sex-Feminity and masculinity-importance of women studies-Patrilineal and matrilineal systems and its relevance to present Indian society- Demography of female population in India-Age structure, mortality rates-Inter-state variations in sex ratio-Causes of declining sex ratio- Measurement of fertility and its control-UNDP's gender related measures.

Module II: Women and Labour Markets

Factors affecting female entry in labour markets-supply and demand for female labour in developed and developing countries, particularly in India- Female work participation in agriculture, non-agriculture rural activities, informal sector, cottage and small industries, organized industry and service sector- Wage differentials and its determinants- Gender,

Education, Skill, Productivity, Efficiency -Impact of technology and modernization on women's work participation- Effects of globalization and liberalization on women.

Module III: Tools of Women Empowerment

Women and education- GER ratio in India -Addressing gender inequalities in education- Gender equity in health-Access to nutrition-Women's participation in decision making -Role of civil society –Role of NGO's in empowering women- Gender and Community Economic Development(CED)-SEWA-Shramshakti-Kudumbashree in Kerala.

Module IV: Social Security for Women

Measures for gender well being- Entitlements, ensuring economic independence and risk coverage, access to credit and insurance market- Review of legislation for women's entitlements in India -Importance of 73rd Amendment of constitution in gender empowerment.

Module V: Social Protection for Women

Protection of property rights- schemes for safety net for women- Effectiveness of collective bargaining-Public and private programmes to improve women's health-National Commission for Women(NCW)- The National Credit Fund for Women-MahilaSamridhi Yojana (MSY)- National policy for empowering women- International measures to protect women's' rights-

U.N Decade for women -UN convention on CEDAW and DEVAW.

IV. References

1. Sen, Sujatha (2012): Gender Studies- Dorling Kindersley (India) Pvt.Ltd, NewDelhi.
2. Sen, Suvarna (2006): Gender and Development- ICFAI University Press,Hyderabad.
3. Dutta, Nandita and, Sumitra Jha (2014): Women and Rural Development- Pacific Books InternationalDelhi.
4. Dutta, Nandita and, Sumitra Jha (2014): Women and Agricultural Development- Pacific Book, NewDelhi.