



# ALAGAPPA UNIVERSITY



(A State University Established in 1985)  
Karaikudi - 630003. Tamil Nadu, India



## FACULTY OF ARTS DEPARTMENT OF ECONOMICS AND RURAL DEVELOPMENT



### **M.A., ECONOMICS** **REGULATIONS AND SYLLABUS**

(For the candidates admitted from the  
Academic Year 2022 - 2023)

**DEPARTMENT OF ECONOMICS AND RURAL DEVELOPMENT  
M.A., ECONOMICS**

**REGULATIONS AND SYLLABUS**

[For the candidates admitted from the Academic Year 2022 – 2023 onwards]



**ALAGAPPA UNIVERSITY**

(A State University Accredited with “A+” grade by NAAC (CGPA: 3.64) in the Third Cycle and  
Graded as Category-I University by MHRD-UGC)  
Karaikudi -630003, Tamil Nadu.

## THE PANEL OF MEMBERS-BROAD BASED BOARD OF STUDIES

<p><b>Chairperson: Dr. A. Narayanamoorthy</b>, Senior Professor and Head, Department of Economics and Rural Development, Alagappa University. Teaching Experience: 30 years, Research Experience: 30 years, Area of Research: Economics of Irrigation including Micro-Irrigation, Agricultural Economics and Rural Evaluation Studies.</p>	
<p><b>Foreign Expert: Dr. Suresh Babu</b>, Senior Research Fellow / Head of Capacity Strengthening, International Food Policy Research Institute, Washington, USA. Teaching Experience: 33 years, Research Experience: 42 years, Area of Research: Food Policy, Capacity Strengthening Nutrition Policy and Natural Resources.</p>	
<p><b>Indian Expert: Dr. S. Rajendran</b>, Professor, Department of Economics, The Gandhigram Rural Institute, Gandhigram. Teaching Experience: 26 years, Research Experience: 39 years, Area of Research: Development Studies and Water Management Studies.</p>	
<p><b>Indian Expert: Dr. S. Boopathi</b>, Professor and Head, Department of Economics, Bharathiar University, Coimbatore. Teaching Experience: 18 years, Research Experience: 18 years, Area of Research: Environmental Economics, Natural Resources and Rural Economics.</p>	
<p><b>Industry Expert: Dr. R. Gopinath</b>, Senior Scientist, MS Swaminathan Research Foundation, Chennai. Research Experience: 15 years, Area of Research: Agrarian studies in India, Food Security and Development Studies.</p>	
<p><b>Internal Member: Dr. R. Suresh</b>, Assistant Professor, Department of Economics and Rural Development, Alagappa University. Teaching Experience: 07 years, Research Experience: 07 years, Area of Research: Agricultural Economics, Economics of Irrigation and Crop Profitability.</p>	
<p><b>Internal Member: Dr. K. Ramesh Kumar</b>, Assistant Professor, Department of Economics and Rural Development, Alagappa University. Teaching Experience: 10 years, Research Experience: 06 years, Area of Research: Labour Economics and Development Economics.</p>	
<p><b>Alumni Member: Dr. N. Gayathri Devi</b>, Assistant Professor, Department of Economics, Sree Sevugan Annamalai College, Devakottai. Teaching Experience: 03 years, Research Experience: 03 years, Area of Research: Agricultural Economics.</p>	

**ALAGAPPA UNIVERSITY**  
**DEPARTMENT OF ECONOMICS AND RURAL DEVELOPMENT**  
Karaikudi -630003, Tamil Nadu.

**REGULATIONS AND SYLLABUS - (CBCS-University Department)**  
[For the candidates admitted from the Academic Year 2022 – 2023 onwards]

Name of the Department : Economics and Rural Development

Name of the Programme : M.A., Economics

Duration of the Programme : Full Time (Two Years)

### **Choice-Based Credit System**

A Choice-Based Credit System is a flexible system of learning. This system allows students to gain knowledge at their own tempo. Students shall decide on electives from a wide range of elective courses offered by the University Departments in consultation with the Department committee. Students undergo additional courses and acquire more than the required number of credits. They can also adopt an inter-disciplinary and intra-disciplinary approach to learning and make the best use of the expertise of available faculty.

### **Programme**

“Programme” means a course of study leading to the award of a degree in a discipline.

### **Courses**

‘Course’ is a component (a paper) of a programme. Each course offered by the Department is identified by a unique course code. A course contains lectures tutorials/laboratory/seminar/project/practical training/report writing/viva-voce, etc., or a combination of these, to meet effectively the teaching and learning needs.

### **Credits**

The term “Credit” refers to the weightage given to a course, usually in relation to the instructional hours assigned to it. Normally in each of the courses credits will be assigned on the basis of the number of lectures/tutorial/laboratory and other forms of learning required to complete the course contents in a 15-week schedule. One credit is equal to one hour of lecture per week. For laboratory/field work one credit is equal to two hours.

### **Semesters**

An Academic year is divided into two Semesters. In each semester, courses are offered in 15 teaching weeks and the remaining 5 weeks are to be utilized for conduct of examination and evaluation purposes. Each week has 30 working hours spread over 5 days a week.

### **Medium of Instruction**

English

### **Departmental Committee**

The Departmental Committee consists of the faculty of the Department. The Departmental Committee shall be responsible for admission to all the programmes offered by the Department including the conduct of entrance tests, verification of records, admission, and evaluation. The Departmental Committee determines the deliberation of courses and specifies the allocation of credits semester-wise and course-wise. For each course, it will also identify the number of credits for lectures, tutorials, practicals, seminars, etc. The courses (Core/Discipline Specific Elective/Non-Major Elective) are designed by teachers and approved by the Departmental Committees. Courses approved by the Departmental Committees shall be approved by the Board of Studies/Broad Based Board of Studies. A teacher offering a course will also be responsible for maintaining attendance and performance sheets (CIA-I, CIA-II, assignments and seminar) of all the students registered for the course. The Non-major elective programme, MOOCs coordinator and Internship Mentor are responsible for submitting the performance sheet to the Head of the department. The Head of the Department consolidates all such performance sheets of courses pertaining to the programmes offered by the department and then forwards the same to the Controller of Examinations.

### **Programme Educational Objectives (PEO)**

PEO-1	To provide an in-depth understanding on the basic concepts and theories in various branches of economics.
PEO-2	To provide details on the sectoral development of economy concerning India.
PEO-3	To provide exposure to the national and international economic problems.
PEO-4	To familiarise the important economic problems and concepts to the students.
PEO-5	To facilitate the students to acquire skills in systematic evaluation and follow-up of economic projects.
PEO-6	To provide exposure on the application of statistical tools in economic analysis.
PEO-7	To provide a deeper understanding on the Indian economy.
PEO-8	To provide a detailed understanding about the macro economic problems.
PEO-9	To provide detailed training on conducting empirical research in economics.
PEO-10	To prepare the students for competing for Indian Economic Services (IES), Economists position at RBI, NABARD, NITI Aayog, Consultancy Organisations and other leading academic and research institutions.

### **Programme Specific Objectives (PSO)**

PSO-1	To provide an understanding of the way individual households and business firms make choices and decisions.
PSO-2	To provide detailed understanding on various macro-economic models which would help the students to integrate the models with theory.
PSO-3	To strengthen the fundamental mathematical skills essential for solving economic problems.
PSO-4	To exhort the students to understand the concepts and issues of economic

	growth and development, models, theories and developmental policies.
PSO-5	To provide a detailed account on the development of agricultural economy and the related issues with a special focus on Indian agriculture.

### Programme Outcome (PO)

PO-1	The students will be able to understand the functions of key economic instruments.
PO-2	The students will be able to use the micro economic models to explain the changes in real world economic analysis.
PO-3	The students will be able to apply econometric and statistical tools in economic analysis.
PO-4	The students will be able to meet the market demands and also enrich their intellectual ability.
PO-5	The students will be able to acquire broad knowledge on different fields of economics.
PO-6	The students will be able to acquire significant knowledge to face various competitive examinations.
PO-7	The students will be able to use macroeconomic models to explain the changes in real economic situation.
PO-8	The students will be able to prepare proposals to carry out research on economic issue.
PO-9	The students will be able to deal with the issues pertaining to the money matters.
PO-10	The students will be able to acquire full knowledge about the issues on public finance.

### Programme Specific Outcome (PSO)

PSO-1	The students will be able to apply economic theories in real economic situation.
PSO-2	The students will be able to pin point the policy issues on Indian agriculture.
PSO-3	The students will be able to understand economic models based on real economic issues.
PSO-4	The students will be able to apply econometric tools in empirical research.
PSO-5	The students will be able to carry out empirical research and write report/paper.

### Eligibility for admission

Applicants who have passed B.A. in Economics/Business Economics/Cooperation/B.B.M./B.B.E./B.B.A./B.Com./B.Sc. Statistics/B.Sc., Agricultural Economics and B.Sc. Mathematics in the specified programmes are eligible for admission to the M.A., Economics Programme. Both male and female students not exceeding 20 in number will be admitted to this programme. Those who are waiting for the results of final semester examination can also apply for this programme. The students will be selected based on their marks scored in the UG programme.

## Minimum Duration of programme

The programme is for a period of two years. Each year shall consist of two semesters viz., Odd and Even semesters. Odd semesters shall be from June/July to October/November and even semesters shall be from November/December to April/May. Each semester there shall be 90 working days consisting of 6 teaching hours per working day (5 days/week).

## Components

A PG programme consists of a number of courses. The term “course” is applied to indicate a logical part of the subject matter of the programme and is invariably equivalent to the subject matter of a “paper” in the conventional sense. The following are the various categories of the courses suggested for the PG programmes:

A. *Core Courses (CC)* - “Core Papers” means “the core courses” related to the programme concerned including practicals and project work offered under the programme and shall cover core competency, critical thinking, analytical reasoning and research skill.

B. *Discipline-Specific Electives (DSE)* means the courses offered under the programme related to the major but are to be selected by the students, shall cover additional academic knowledge, critical thinking and analytical reasoning.

C. *Non-Major Electives (NME) - Exposure beyond the Discipline*

- Students have to undergo a total of two Non-Major Elective courses with 2 credits offered by other departments (one in II Semester another in III Semester).
- A uniform time frame of 3 hours on a common day (Tuesday) shall be allocated for the Non-Major Electives.
- Non-Major Elective courses offered by the departments pertaining to a semester should be announced before the end of previous semester.
- Registration Process: Students have to register for the Non-Major Elective course within 15 days from the commencement of the semester either in the department or NME portal (University website).

D. *Self Learning Courses from MOOCs Platforms*

- MOOCs shall be on voluntary for the students.
- Students have to undergo a total of 2 Self Learning Courses (MOOCs) one in II semester and another in III semester.
- The actual credits earned through MOOCs shall be transferred to the credit plan of programmes as extra credits. Otherwise 2 credits/course be given if the Self Learning Course (MOOCs) is without credit.
- While selecting the MOOCs, preference shall be given to the course related to employability skills.

E. *Projects (Maximum Marks: 200)*

The student shall undertake the Project work during the fourth semester.

- **Plan of work**

## Project/Dissertation

The candidate shall undergo Project/Dissertation Work during the final semester. The candidate should prepare a scheme of work for the dissertation/project and should get approval from the guide.

The candidate, after completing the dissertation/project work, shall be allowed to submit it to the University departments at the end of the final semester. If the candidate is desirous of availing the facility from other departments/universities/laboratories/organizations, they will be permitted only after getting approval from the guide and HOD. In such a case, the candidate shall acknowledge the same in their dissertation/project work.

➤ **Format to be followed for dissertation/project report**

The format/certificate for thesis to be followed by the student are given below

- ❖ Title page
- ❖ Certificate
- ❖ Acknowledgment
- ❖ Content as follows:

Chapter No	Title	Page number
1	Introduction	
2	Aim and objectives	
3	Review of literature	
4	Materials and methods	
5	Results and Discussion/Analysis	
6	Findings and Recommendations	
7	References	

➤ **Format of the title page**

**Title of Dissertation/Project work**

Dissertation/Project submitted in partial fulfilment of the requirement for the degree of Master of Arts to the Alagappa University, Karaikudi - 630003.

By

(Student Name)

(Register Number)

University Logo

**Department of**-----

**Alagappa University**

(A State University Accredited with “A+” grade by NAAC (CGPA: 3.64) in the Third Cycle and Graded as Category-I University by MHRD-UGC, 2019: QS ASIA Rank-216, QS BRICS Rank-104, QS

India Rank-20)

Karaikudi – 630003

(Year)



➤ **Format of certificates**

**Certificate –Guide**

This is to certify that the Dissertation/Project entitled “-----” submitted to Alagappa University, Karaikudi-630 003 in partial fulfilment for the degree of Master of Science in ----- by Mr/Mis -----(Reg No:-----) under my supervision. This is based on the results of studies carried out by him/her in the Department of-----, Alagappa University, Karaikudi-630 003. This dissertation/Project or any part of this work has not been submitted elsewhere for any other degree, diploma, fellowship, or any other similar titles or record of any University or Institution.

Place: Karaikudi

Research Supervisor

Date:\_\_\_\_\_

**Certificate - (HOD)**

This is to certify that the thesis entitled “-----” submitted by Mr/Mis -----(Reg No: -----) to the Alagappa University, in partial fulfilment for the award of the degree of Master of -----in ----- is a bonafide record of research work done under the supervision of Dr.-----, Assistant Professor, Department of-----, Alagappa University. This is to further certify that the thesis or any part thereof has not formed the basis of the award to the student of any degree, diploma, fellowship, or any other similar title of any University or Institution.

Place: Karaikudi

Head of the Department

Date:\_\_\_\_\_

**Declaration (student)**

I hereby declare that the dissertation entitled “-----” submitted to the Alagappa University for the award of the degree of Master of ----- in ----- has been carried out by me under the guidance of Dr. -----, Assistant Professor, Department of-----, Alagappa University, Karaikudi – 630 003. This is my original and independent work and has not previously formed the basis of the award of any degree, diploma, associateship, fellowship, or any other similar title of any University or Institution.

Place: Karaikudi

(-----)

Date:\_\_\_\_\_

### ➤ No. of copies of the dissertation/project report

The candidate should prepare three copies of the dissertation/project/report and submit the same for the evaluation of examiners. After evaluation, one copy will be retained in the department library, one copy will be retained by the guide and the student shall hold one copy.

### Teaching Methods

The Department of Economics and Rural Development uses novel and innovative methods for teaching different courses. Interactive Board, ICT tools, online learning, web-cast learning, group learning, case study method, hands-on-learning, writing assignments, seminar by students, etc., are used as part of teaching methods. Through the adoption of these methods, students can obtain in-depth knowledge on the basic concepts and theories in various branches of economics.

### Attendance

Students must have earned 75% of attendance in each course for appearing for the examination. Students who have earned 74% to 70% of attendance need to apply for condonation in the prescribed form with the prescribed fee. Students who have earned 69% to 60% of attendance need to apply for condonation in the prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 60% of attendance are not eligible to appear for the End Semester Examination (ESE). They shall re-do the semester(s) after completion of the programme.

### Examination

The examinations shall be conducted separately for theory and practical's to assess (remembering, understanding, applying, analysing, evaluating, and creating) the knowledge required during the study. There shall be two systems of examinations viz., internal and external examinations. The internal examinations shall be conducted as Continuous Internal Assessment Tests I and II (CIA Test I & II).

#### A. Internal Assessment

The internal assessment shall comprise a maximum of 25 marks for each subject. The following procedure shall be followed for awarding internal marks.

Theory - 25 marks

Sr.No	Content	Marks
1	Average marks of two CIA test	15
2	Seminar/group discussion/quiz	5
3	Assignment/field trip report/case study report	5
	Total	25

Project/Dissertation - 50 Marks (assess by Guide/incharge/HOD/supervisor)

1	Two presentations (mid-term)	30 Marks
2	Progress report	20 Marks
	Total	50 Marks

## B. External Examination

- ❖ There shall be examinations at the end of each semester, for odd semesters in the month of October/November; for even semesters in April/May.
- ❖ A candidate who does not pass the examination in any course(s) may be permitted to appear in such failed course(s) in the subsequent examinations to be held in October/November or April/May. However candidates who have arrears in Practical shall be permitted to take their arrear Practical examination only along with Regular Practical examination in the respective semester.
- ❖ A candidate should get registered for the first semester examination. If registration is not possible owing to shortage of attendance beyond condonation limit/regulation prescribed OR belated joining OR on medical grounds, the candidates are permitted to move to the next semester. Such candidates shall re-do the missed semester after completion of the programme.
- ❖ For the Project Report/Dissertation Work/internship, the maximum marks will be 100 marks for project report evaluation and for the Viva-Voce, it is 50 marks (if in some programmes, if the project is equivalent to more than one course, the project marks would be in proportion to the number of equivalent courses).
- ❖ Viva-Voce: Each candidate shall be required to appear for Viva-Voce Examination (in defense of the Dissertation Work /Project/ Internship).

## C. Scheme of External Examination (Question Paper Pattern)

Theory - Maximum 75 Marks

Section A	10 questions. All questions carry equal marks (Objective type questions)	10 x 1 = 10 Marks	10 questions – 2 each from every unit
Section B	5 questions Either/Or type like 1.a (or) b. All questions carry equal marks	5 x 5 = 25	5 questions – 1 each from every unit
Section C	5 questions Either/Or type like 1.a (or) b. All questions carry equal marks	5 x 8 = 40	5 questions – 1 each from every unit

## Dissertation /Project Report Scheme of Evaluation

Dissertation /Project report/Internship Report	100 Marks
Vivo-voce	50 Marks

## Results

The results of all the examinations will be published through the Department where the student underwent the course as well as through University Website.

## Passing minimum

- ❖ A candidate shall be declared to have passed in each course if he/she secures not less than 40% marks in the End Semester Examinations and 40% marks in the Internal Assessment

and not less than 50% in the aggregate, taking Continuous Assessment and End Semester Examinations marks together.

- ❖ The candidates not obtained 50% in the Internal Assessment are permitted to improve their Internal Assessment marks in the subsequent semesters (2 chances will be given) by writing the CIA tests and by submitting assignments.
- ❖ Candidates, who have secured the pass marks in the End-Semester Examination and in the CIA but failed to secure the aggregate minimum pass mark (E.S.E + C I.A), are permitted to improve their Internal Assessment mark in the following semester and/or in University examinations.
- ❖ A candidate shall be declared to have passed in the Project/Dissertation/Internship if he/she gets not less than 40% in each of the Project/Dissertation/Internship Report and Viva-Voce and not less than 50% in the aggregate of both the marks for Project Report and Viva-Voce.
- ❖ A candidate who gets less than 50% in the Project/Dissertation/Internship Report must resubmit the thesis. Such candidates need to take again the Viva-Voce on the resubmitted Project report.

### Grading of the Courses

The following table gives the marks, Grade points, Letter Grades and classifications meant to indicate the overall academic performance of the candidate.

Conversion of Marks to Grade Points and Letter Grade (Performance in Course / Paper)

RANGE OF MARKS	GRADE POINTS	LETTER GRADE	DESCRIPTION
90 - 100	9.0 – 10.0	O	Outstanding
80 - 89	8.0 – 8.9	D+	Excellent
75 - 79	7.5 – 7.9	D	Distinction
70 - 74	7.0 – 7.4	A+	Very Good
60 - 69	6.0 – 6.9	A	Good
50 - 59	5.0 – 5.9	B	Average
40 - 49	4.0 – 4.9	C	Satisfactory
00 - 39	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

- a) Successful candidates passing the examinations and earning GPA between 9.0 and 10.0 and marks from 90 – 100 shall be declared to have Outstanding (O).
- b) Successful candidates passing the examinations and earning GPA between 8.0 and 8.9 and marks from 80 - 89 shall be declared to have Excellent (D+).
- c) Successful candidates passing the examinations and earning GPA between 7.5 – 7.9 and marks from 75 - 79 shall be declared to have Distinction (D).
- d) Successful candidates passing the examinations and earning GPA between 7.0 – 7.4 and marks from 70 - 74 shall be declared to have Very Good (A+).

- e) Successful candidates passing the examinations and earning GPA between 6.0 – 6.9 and marks from 60 - 69 shall be declared to have Good (A).
- f) Successful candidates passing the examinations and earning GPA between 5.0 – 5.9 and marks from 50 - 59 shall be declared to have Average (B).
- g) Successful candidates passing the examinations and earning GPA between 4.0 – 4.9 and marks from 40 - 49 shall be declared to have Satisfactory (C).
- h) Candidates earning GPA between 0.0 and marks from 00 - 39 shall be declared to have Re-appear (U).
- i) Absence from an examination shall not be taken as an attempt.

From the second semester onwards the total performance within a semester and continuous performance starting from the first semester are indicated respectively by **Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA)**. These two are calculated by the following formulate

$$\text{GRADE POINT AVERAGE (GPA)} = \frac{\sum_i C_i G_i}{\sum_i C_i}$$

$$\text{GPA} = \frac{\text{Sum of the multiplication of grade points by the credits of the courses}}{\text{Sum of the credits of the courses in a Semester}}$$

### **Classification of the final result**

The final result of the candidate shall be based only on the CGPA earned by the candidate.

- a) Successful candidates passing the examinations and earning CGPA between 9.5 and 10.0 shall be given Letter Grade (O+) and those who earned CGPA between 9.0 and 9.4 shall be given Letter Grade (O) and declared to have First Class –Exemplary\*.
- b) Successful candidates passing the examinations and earning CGPA between 7.5 and 7.9 shall be given Letter Grade (D), those who earned CGPA between 8.0 and 8.4 shall be given Letter Grade (D+) and those who earned CGPA between 8.5 and 8.9 shall be given Letter Grade (D++) and declared to have First Class with Distinction\*.
- c) Successful candidates passing the examinations and earning CGPA between 6.0 and 6.4 shall be given Letter Grade (A), those who earned CGPA between 6.5 and 6.9 shall be given Letter Grade (A+) and those who earned CGPA between 7.0 and 7.4 shall be given Letter Grade (A++) and declared to have First Class.
- d) Successful candidates passing the examinations and earning CGPA between 5.0 and 5.4 shall be given Letter Grade (B) and those who earned CGPA between 5.5 and 5.9 shall be given Letter Grade (B+) and declared to have passed in Second Class.
- e) Successful candidates passing the examinations and earning CGPA between 4.0 and 4.4 shall be given Letter Grade (C) and those who earned CGPA between 4.5 and 4.9 shall be given Letter Grade (C+) and declared to have passed in Third Class.
- f) Absence from an examination shall not be taken as an attempt.

## Final result

CGPA	Grade	Classification of Final Result
9.5 – 10.0	O+	First Class – Exemplary*
9.0 and above but below 9.5	O	
8.5 and above but below 9.0	D++	First Class with Distinction*
8.0 and above but below 8.5	D+	
7.5 and above but below 8.0	D	
7.0 and above but below 7.5	A++	First Class
6.5 and above but below 7.0	A+	
6.0 and above but below 6.5	A	
5.5 and above but below 6.0	B+	Second Class
5.0 and above but below 5.5	B	
4.5 and above but below 5.0	C+	Third Class
4.0 and above but below 4.5	C	
0.0 and above but below 4.0	U	Re-appear

CUMMULATIVE GRADE POINT AVERAGE (CGPA) =  $\frac{\sum_n \sum_i C_{ni} G_{ni}}{\sum_n \sum_i C_{ni}}$

CGPA = Sum of the multiplication of grade points by the credits of the entire Programme  
Sum of the credits of the course for the entire Programme

Where 'Ci' is the Credit earned for Course i in any semester; 'Gi' is the Grade Point obtained by the student for Course i and 'n' refers to the semester in which such courses were credited.

**CGPA** (Cumulative Grade Point Average) = Average Grade Point of all the Courses passed starting from the first semester to the current semester.

Note: \* The candidates who have passed in the first appearance and within the prescribed Semesters of the UG Programme (Major, Allied and Elective courses alone) are alone eligible for this classification.

### Maximum duration of the completion of the programme

The maximum period for completion of M.A., in Economics shall not exceed eight semesters continuing from the first semester.

### Conferment of the Master's Degree

A candidate shall be eligible for the conferment of the Degree only after he/she has earned the minimum required credits for the Programme prescribed (i.e. 90 credits).

### Village Extension Programme

The Sivaganga and Ramnad districts are very backward districts, where a majority of people live under poverty. The rural mass is economically and educationally backward. Thus, the aim of the introduction of this Village Extension Programme is to extend out to reach environmental awareness, social activities, hygiene and health to the rural people of this region. The students in

their third semester have to visit any one of the adopted villages within the jurisdiction of Alagappa University and can arrange various programmes to educate the rural mass in the following areas for three day based on the theme: a). Environmental awareness, b). Hygiene and Health. A minimum of two faculty members can accompany the students and guide them.



### M.A., ECONOMICS –PROGRAMME STRUCTURE

S.N	Course Code	Name of the course		T/	Credit	Hours/Week	Marks		
							IA	EA	Total
<b>SEMESTER I</b>									
1	455 101	Core 1	Micro Economics – I	T	5	5	25	75	100
2	455 102	Core 2	Macro Economics – I	T	5	5	25	75	100
3	455 103	Core 3	Mathematics for Economic Analysis	T	4	5	25	75	100
4	455 104	Core 4	Water Policies and Irrigation Development	T	4	5	25	75	100
5	455 501	DSE 1	Elective-1	T	4	4	25	75	100
			Library/Seminar/Spoken English		-	6	-	-	-
			<b>Total</b>		<b>22</b>	<b>30</b>	-	-	<b>500</b>
<b>SEMESTER II</b>									
6	455 201	Core 5	Micro Economics – II	T	5	5	25	75	100
7	455 202	Core 6	Macro Economics – II	T	5	5	25	75	100
8	455 203	Core 7	Indian Economic Development	T	4	4	25	75	100
9	455 204	Core 8	Indian Financial Institutions and Markets	T	4	4	25	75	100
10	455 502	DSE 2	Elective-2	T	4	4	25	75	100
11	-	NME 1	Non Major Elective - I	T	2	3	25	75	100
		*SLC-I	MOOCs				Extra Credit		
			Library/Yoga/Spoken English/ Career Guidance/ Seminar		-	5	-	-	-
			<b>Total</b>		<b>24</b>	<b>30</b>			<b>600</b>
<b>SEMESTER III</b>									
12	455 301	Core 9	Public Finance	T	4	5	25	75	100
13	455 302	Core 10	Development Economics	T	4	5	25	75	100
14	455 303	Core 11	Research Methodology	T	4	4	25	75	100
15	455 304	Core 12	International Economics	T	4	4	25	75	100
16	455 503	DSE 3	Elective-3	T	4	4	25	75	100
17	-	NME 2	Non Major Elective - II	T	2	3	25	75	100
		*SLC-II	MOOCs				Extra Credit		
			Library/Yoga/Competitive Examination Coaching/ Career Guidance/Seminar		-	5	-	-	-
			<b>Total</b>		<b>22</b>	<b>30</b>			<b>600</b>
<b>SEMESTER IV</b>									
18	455 401	Core 13	Monetary Economics	T	4	4	25	75	100
19	455 402	Core 14	Agricultural Economics	T	4	4	25	75	100
20	455 403	Core 15	Environmental Economics	T	4	4	25	75	100
21	455 999	Core 16	Project Report and Viva-Voce		10	16	50	150	200
			Library/Seminar/Competitive Examination Coaching		-	2	-	-	-
			<b>Total</b>		<b>22</b>	<b>30</b>	-	-	<b>500</b>
<b>Grand Total</b>					<b>90 + Extra Credit</b>	<b>120</b>	-	-	<b>2200</b>
*Credits earned through Self Learning Course (MOOCs) shall be transferred in the credit plan of the programme as extra credits.									



### List of Elective Courses

S.No	Course Code	Code	Name of the course	Credit	Hours/Week	Marks		
						IA	EA	Total
1	455 501	DSE 1	Computer Application for Data Analysis	4	4	25	75	100
2	455 502	DSE 2	Econometrics	4	4	25	75	100
3	455 503	DSE 3	Statistical Analysis	4	4	25	75	100
4	455 504	DSE 4	Energy Economics	4	4	25	75	100
5	455 505	DSE 5	Industrial Economics	4	4	25	75	100
6	455 506	DSE 6	Project Planning and Evaluation	4	4	25	75	100
7	455 507	DSE 7	Dynamics of Rural Development	4	4	25	75	100



Semester – I					
Core 1	Course code: 455 101	Micro Economics – I	T	Credits: 5	Hours: 5
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an understanding on theory of consumer behaviour</b>				
<b>Theory of Consumer Behaviour:</b> Utility Theory: Total Utility and Marginal Utility- Ordinal Approach: Indifference Curve (Income and Substitution Effects, Slutsky Theory and Compensated Demand Curve) and their Application; Revealed Preference, Theory of Demand (Hicks)- Characteristics of Goods Approach (Lancaster)- Consumer Choice Involving Risk: N-M Hypothesis; Friedman-Savage-Markowitz Hypothesis					
<b>Outcome 1</b>	<b>The students will be able to analyse the behaviour of consumers</b>			<b>K4</b>	
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide exposure on production and cost</b>				
<b>Theory of Production and Cost:</b> Theory of Production Function: Marginal Product, Average Product and Total Product- Elasticity of Substitution: Euler’s Theorem– Technical Progress and Cobb-Douglas, CES, VES, Trans-log Production Function and Frontier Production Function: Empirical Work – Traditional and Modern Theories of Cost – Derivation of Cost Functions: Total Cost, Average Cost, Marginal Cost, Average Fixed Cost, Average Variable Cost.					
<b>Outcome 2</b>	<b>The students will be able to understand the behaviour of markets</b>			<b>K2</b>	
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide in-depth exposure of market theories</b>				
<b>Market Theories:</b> Price and Output Relations: Perfect Competition, Monopoly, Monopolistic Competition, Monopsony, Bilateral Monopoly- Product Differentiation- Selling Cost – Excess Capacity under Monopolistic Competition – Imperfect Competition– Oligopoly: Non-Collusive (Cournot, Bernard, Edgeworth, Chamberlin, Kinked Demand Curve and Stackelberg’s Solution) and Collusive (Cartels and Mergers, Price Leadership and Barometric Point Price System) Contestable Market – Global Competition.					
<b>Outcome 3</b>	<b>The students will be able to understand the fixing of prices in different markets</b>			<b>K2</b>	
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To explain about the pricing practices</b>				
<b>Pricing Practices:</b> Historical Pricing- Premium Pricing– Penetration Pricing– Economy Pricing– Skimming Price– Psychological Pricing– Neutral Strategy– Captive Product Pricing– Optional Product Pricing– Bundling Price– Promotional Pricing Strategy– Geographical Pricing– Line Pricing– Peak Load Pricing.					
<b>Outcome 4</b>	<b>The students will be able to understand different costs used in production process</b>			<b>K3</b>	
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To explain the way individual households and business firms make choices and decisions</b>				
<b>Alternative Theories of Firm:</b> Critical Evaluation of Marginal Analysis: Baumol’s Sales Maximization and Williamson’s Model of Managerial Discretion – Marris Model of Managerial Enterprise– Full Cost Pricing Rule- Bains Limit Pricing Theory; Sylos-Labini’s Model– Behavioural Model of the Firm: Cyert and March.					
<b>Outcome 5</b>	<b>The students will be able to analyse the firms and markets using tools and diagrams; assess the microeconomic theories and models in terms of their policy implications, advantages and limitations.</b>			<b>K4</b>	

**Suggested Readings**

Gravelle, H. & Rees, R. (2004). *Microeconomics*. Prentice Hall. Pearson Education Limited, England.

Jehle, G.A. & Reny, P.J. (2011). *Advanced Microeconomic Theory*. Prentice Hall. Pearson Education Limited, England.

Koutsiyannis, A. (2008). *Modern Microeconomics*. MacMillan, London.

Kreps, D.K. (1990). *A Course in Microeconomic Theory*. Princeton University Press, New Jersey, USA.

Mankiw, N.G. (2015). *Principles of Microeconomics*. Cengage India Private Limited, New Delhi.

MasColell, A., Whinston, M.D., & Green, J.R. (1995). *Microeconomic Theory*. Oxford University Press, New Delhi.

Menger, C. (2019). *Principles of Economics*. Ludwig von Mises Institute, Alabama, United States.

Samuelson, P.A. & William D.N. (2021). *Microeconomics*. Tata McGraw Hill International, New Delhi.

Varian, H.R. (2010). *Microeconomic Analysis*. W.W. Norton and Company, New York.

Online resources

Micro Economics -

[https://edisciplinas.usp.br/pluginfile.php/4292722/mod\\_resource/content/1/%288th%20Edition%29%20%28The%20Pearson%20Series%20in%20Economics%29%20Robert%20Pindyck%2C%20Daniel%20Rubinfeld-Microecon.pdf](https://edisciplinas.usp.br/pluginfile.php/4292722/mod_resource/content/1/%288th%20Edition%29%20%28The%20Pearson%20Series%20in%20Economics%29%20Robert%20Pindyck%2C%20Daniel%20Rubinfeld-Microecon.pdf)

Principles of Economics - <https://gargicollege.in/wp-content/uploads/2020/03/Karl-E.-Case-Ray-C.-Fair-Sharon-M.-Oster-Principles-of-Economics-10th-Edition-The-Pearson-Series-in-Economics-.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)
CO2	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)
W.AV	2.6	3.0	2.8	2.6	2.8	2.6	2.8	3.0	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	S(3)	M(2)	M(2)	S(3)
CO3	S(3)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)
W.AV	3.0	2.8	2.6	2.6	2.8

S-Strong (3), M-Medium (2), L-Low (1)

Semester – I					
Core 2	Course code: 455 102	Macro Economics – I	T	Credits: 5	Hours: 5
Unit-I					
Objective 1	To provide the key models that help to analyze and explain macro-economic phenomena				
<p><b>Basic Concepts:</b> Need for a Separate Study of Macro Economics- National Income – Circular Flow of Income and Expenditure of Two Sector, Three Sector and Four Sector Models– National Income and National Product– Methods: Income, Expenditure and Product- Concepts of National Income – Measurement of National Income: Current Price and Constant Price– Difficulties in the Measurement of National Income– National Income and Measure of Welfare- Difficulties; Distribution Effects.</p>					
Outcome 1	The students will be able to describe full employment and price-level stability			K1	
Unit-II					
Objective 2	To impart knowledge an investigating economic growth and business cycles				
<p><b>Macro Economic Theories:</b> The Classical Theory of Employment– Say’s Law of Markets- Aggregate Demand and Supply (Two, Three and Four Sector Model) – The Consumption Function- Keynesian Psychological Law of Consumption: APC, MPC, APS, MPS Relations– The Marginal Efficiency of Investment (MEI)– Relation Between the MEC (Central Stock) and the MEI (Investment)– Factors other than the Interest Rate Affecting Inducement to Invest – Income Determination in Closed and Open Economy– The Keynesian Theory of Income, Output and Employment.</p>					
Outcome 2	The students will be able to analyse unemployment			K4	
Unit-III					
Objective 3	To provide a detailed understanding about the importance of consumption				
<p><b>Macro Economic Theories:</b> Savings and Investment Equality (The Classical and Keynes criticism of the view) – The Accelerator Theory of Investment – Lags in Investment: Koyek’s Approach– Financial Theories of Investment: Duesenberry’s Financial Theory of Investment– Jorgenson’s Neo-Classical Theory of Investment– Multipliers: Investment Multiplier, Period Multiplier, Employment Multiplier, Super Multiplier.</p>					
Outcome 3	The students will be able to analyse the issues on inflation			K4	
Unit-IV					
Objective 4	To provide a detailed understanding about the relationship between savings and investment				
<p><b>Post-Keynesian Developments in Macro Economics:</b> IS-LM Curves Model Real Sector Equilibrium: The Derivation of the IS Curve, Shift in the IS Curve; The LM Curve, Shift in the LM Curve; Intersection of the IS and LM Curves, Effectiveness of IS and LM- Phillips Curve: Long-run Phillips Curve- Rational Expectations Theory- Numerical Problems of IS Curve– Two and Three Sector Model– Derivative of LM Curve– Determination of Income and Interest under IS Curve.</p>					
Outcome 4	The students will be able to explain the components of aggregate economic activity			K5	

<b>Unit-V</b>		
<b>Objective 5</b>	<b>To familiarise the nexus between unemployment, fiscal and monetary policy.</b>	
<b>Supply Side Economics:</b> Supply Side Economics: Laffer Curve- Taxation and Labour Supply– Reagan Economics and Supply Side Economics– Reducing the Burden of Government Regulations, Increasing Growth Rate, Effect on the Distribution of Income.		
<b>Outcome 5</b>	<b>The students will be able to explain economic fluctuations and its effects for the national economy.</b>	<b>K5</b>
<b>Suggested Readings</b>		
Blanchard, O. & Johnson, D.R. (2017). <i>Macroeconomics</i> . Pearson Education Limited, New York.		
Carlin, W. & David, S. (2007). <i>Macroeconomics: Imperfections, Institutions, and Policies</i> . Oxford University Press, New Delhi.		
David, R. (2019). <i>Advanced Macroeconomics</i> . McGraw Hill Higher Education, London.		
Froyen, R.T. (2022). <i>Macroeconomics: Theory and Policies</i> . Pearson Education Limited, England.		
Levacic, R. & Rebmann, A. (2003). <i>Macro Economics: An Introduction to Keynesian - Neoclassical Controversies</i> . Palgrave Macmillan, London.		
Mankiw, N.G. & Taylor, M. P. (2017). <i>Macroeconomics</i> . Cengage India Private Limited, New Delhi.		
Online resources		
Macro Economics - <a href="https://www.bu.edu/econ/files/2014/08/DLS1.pdf">https://www.bu.edu/econ/files/2014/08/DLS1.pdf</a>		
Macroeconomics Theory and Policy - <a href="http://196.188.170.250:8080/jspui/bitstream/123456789/2228/1/Macroeconomics%20Theory%20and%20Policy-.pdf">http://196.188.170.250:8080/jspui/bitstream/123456789/2228/1/Macroeconomics%20Theory%20and%20Policy-.pdf</a>		
K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create		
<b>Course Designed by: Dr.A.Narayanamoorthy</b>		

#### Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)
CO2	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)
W.AV	2.6	3.0	2.8	2.6	2.8	2.6	3.0	2.8	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course OutcomeVS Programme Specific Outcomes**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO1</b>	S(3)	S(3)	S(3)	S(3)	S(3)
<b>CO2</b>	S(3)	S(3)	M(2)	M(2)	S(3)
<b>CO3</b>	S(3)	S(3)	S(3)	M(2)	M(2)
<b>CO4</b>	S(3)	M(2)	M(2)	S(3)	S(3)
<b>CO5</b>	S(3)	S(3)	S(3)	S(3)	S(3)
<b>W.AV</b>	3.0	2.8	2.6	2.6	2.8

S-Strong (3), M-Medium (2), L-Low (1)



Semester - I					
Core 3	Course code: 455 103	Mathematics for Economics Analysis	T	Credits: 4	Hours: 5
Unit-I					
<b>Objective 1</b>	<b>To provide a deeper understanding on using functions in economics</b>				
<b>Functions:</b> Linear Algebra-Matrices-Operations – Determinants -Inverse- Cramer’s Rule-Rank. Solution to System of Linear Equations – Functions: Equations – Concepts –Intercept Parameter – Slope Co-efficient – Quadratic Forms - Application in Micro Economics – Equilibrium.					
<b>Outcome 1</b>	<b>The students will be able to the use of functions in economic models</b>				<b>K2</b>
Unit-II					
<b>Objective 2</b>	<b>To provide a detailed understanding about using differential calculus</b>				
<b>Differential Calculus: Derivatives:</b> Partial Derivatives – Youngs Theorem Total Differential - Marginal and Elasticity Concepts - Production and Cost Analysis - Driving Marginal and Average Cost and Revenues.					
<b>Outcome 2</b>	<b>The students will be able to the mathematical knowledge needed for constructing economic models</b>				<b>K4</b>
Unit-III					
<b>Objective 3</b>	<b>To provide a deeper understanding on optimizing through derivatives</b>				
<b>Optimization Through Derivatives:</b> Optimization Technique -Maxima and Minima - First and Second Order Conditions - Utility and Profit Maximization - Cost Minimization.					
<b>Outcome 3</b>	<b>The students will be able to the use of differential calculus in economic models</b>				<b>K3</b>
Unit-IV					
<b>Objective 4</b>	<b>To impart knowledge on using integral calculus in macro-economic issues</b>				
<b>Integral Calculus:</b> Definite and Indefinite Integrals - Application in Micro Economics: Consumer and Producers Surplus.					
<b>Outcome 4</b>	<b>The students will be able to the application of linear programming</b>				<b>K2</b>
Unit-V					
<b>Objective 5</b>	<b>To strengthening the fundamental mathematical skills essential for solving economic problems.</b>				
<b>Input-Output Models and Linear Programming:</b> Input-Output Models: Open and Closed Models – Static and Dynamic Models - Linear Programming – Graphic and Simplex Method - Maximisation and Minimisation Problems.					
<b>Outcome 5</b>	<b>The students will be able to how to apply the mathematics in solving the problems of economics.</b>				<b>K3</b>
<b>Suggested Readings</b>					
Allen, R.G.D. (1986). <i>Mathematical Analysis for Economists</i> . Macmillan India Ltd, New Delhi.					
Bartle, R.G. & Sherbert, D.R. (2014). <i>Introduction to Real Analysis</i> . John Wiley & Sons, New Jersey, NJ.					
Binmore, K.G. (1981). <i>Foundations of Analysis</i> . Cambridge University Press, London.					
Chiang, A.C. & Wainwright, K. (2017). <i>Fundamental Methods of Mathematical Economics</i> . McGraw Hill, New Delhi.					
Dhrymes, P.J. (2013). <i>Mathematics for Econometrics</i> . Springer, Singapore.					
Gupta, S.C. & Kapoor, V.K. (2018). <i>Fundamentals of Applied Statistics</i> . S. Chand & Sons, New Delhi.					
Gupta, S.P. (2021). <i>Statistical Methods</i> . S. Chand & Company, New Delhi.					

Intriligator, M.D. (1971). *Mathematical Optimization and Economic Theory*. Prentice Hall, New York.  
 Sydsaeter, K & Hammond, P.J. (2018). *Mathematics for Economic Analysis*. Pearson Education India, New Delhi.

**Online resources**

Mathematics for Economics and Business -

<http://www.mim.ac.mw/books/Mathematics%20for%20economics%20and%20business%205th%20edition.pdf>

Studies in Statistics and Scientific Method -

<http://www.mim.ac.mw/books/Mathematics%20for%20economics%20and%20business%205th%20edition.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)
CO4	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)
CO5	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)
W.AV	2.4	2.6	3.0	2.8	2.4	2.6	2.6	2.6	3.0	2.4

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	M(2)
CO2	M(2)	S(3)	S(3)	S(3)	S(3)
CO3	M(2)	M(2)	S(3)	M(2)	S(3)
CO4	M(2)	M(2)	S(3)	S(3)	M(2)
CO5	S(3)	S(3)	S(3)	M(2)	S(3)
W.AV	2.4	2.6	3.0	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)



Semester - I					
Core 4	Course code: 455 104	Water Policies and Irrigation Development	T	Credits: 4	Hours: 5
Unit-I					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the water polices of India</b>				
<b>Water Policies and Irrigation Development:</b> Water Policies of India (1987; 2002; 2012) - History of Irrigation Development in India - Importance of Irrigation - Sources of Water - Water Potential and Utilisation - Trends in Source-wise Irrigation Development; Groundwater Exploitation - Climate Change and Water.					
<b>Outcome 1</b>	<b>The students will be able to the overall scenario of India's water and irrigation sector</b>				<b>K2</b>
Unit-II					
<b>Objective 2</b>	<b>To provide exposure on the financial aspects of irrigation development</b>				
<b>Irrigation Finance:</b> Financial Criteria for Sanctioning Irrigation Projects - Public Investment in Irrigation during pre-Independence – Sourcewise and Planwise Investment in Irrigation - Private Investment Experiences in Irrigation – Changes in Irrigation Investment Priorities - Relationship between Irrigation Investment and Potential Created – Efficiency in Irrigation Investment.					
<b>Outcome 2</b>	<b>The students will be able to the trends and development of irrigation</b>				<b>K2</b>
Unit-III					
<b>Objective 3</b>	<b>To provide details on the cost recovery of irrigation sector</b>				
<b>Micro-Irrigation:</b> Origin of Drip and Sprinkler Irrigation Method – Meaning of Drip and Sprinkler Irrigation – Promotional Schemes for Drip and Sprinkler – Potentials for Drip and Sprinkler Irrigation – Trends in Area under Drip and Sprinkler – Water Saving and other Benefits of Drip and Sprinkler – Economic Viability of Drip and Sprinkler Irrigation.					
<b>Outcome 3</b>	<b>The students will be able to the efficiency of irrigation investment</b>				<b>K4</b>
Unit-IV					
<b>Objective 4</b>	<b>To provide a deeper understanding on the impacts of irrigation development</b>				
<b>Financial Recovery of Irrigation Sector:</b> Committees on Pricing of Irrigation Water – Price of water; irrigation and non-irrigation purposes – Changes in Policies of Operation and Maintenance Cost of Irrigation Projects – Financial Recovery of MMI and MI Projects – Reasons for Poor Financial Recovery from Irrigation Sector.					
<b>Outcome 4</b>	<b>The students will be able to the pricing of irrigation water</b>				<b>K5</b>
Unit-V					
<b>Objective 5</b>	<b>To provide an in-depth understanding on the nexus between the irrigation development and agricultural growth.</b>				
<b>Irrigation Impacts:</b> Direct Impacts of Irrigation; Irrigation and Land Utilisation Pattern; Irrigation Development and Agricultural Growth; Cropping Pattern and Irrigation Nexus; Crops Productivity by Source of Irrigation – Indirect Impacts of Irrigation; Irrigation and Farm Wage Rates; Irrigation and Rural Poverty; Irrigation and Human Resources Development.					
<b>Outcome 5</b>	<b>The students will be able to the nexus between irrigation development and agricultural growth.</b>				<b>K5</b>
<b>Suggested Readings</b> Dhawan, B.D. (1988). <i>Irrigation in India's Agricultural Development</i> . Sage Publications, New Delhi.					

Dhawan, B.D. (1999). *Studies in Indian Irrigation*. Commonwealth Publishers, New Delhi.

Kumar, M.D. (2020). *Politics and Policies of Water Resources Management in India*. Routledge, New York.

Narayanamoorthy, A. (2022). *The Irrigation Future of India: Development, Resource and Policy*. Springer Nature, Switzerland.

Sundarm, KPM., & Dutt, R. (2021). *Indian Economy*, S.Chand Group, New Delhi.

Vaidyanathan, A. (1999). *Water Resources Management*. Oxford University Press, New Delhi.

Viswanathan, P.K., Kumar, M.D & Narayanamoorthy, A. (2016). *Micro Irrigation Systems in India*. Springer, Singapore.

Website of Ministry of Jal Shakti ([www.jalshakti-dowr.gov.in](http://www.jalshakti-dowr.gov.in)); Central Groundwater Board ([www.cgwb.gov.in](http://www.cgwb.gov.in)) and Central Water Commission ([www.cwc.gov.in](http://www.cwc.gov.in))

**Online resources**

State - wise reports of First Census of Water bodies -  
[https://cdnbbsr.s3waas.gov.in/s3a70dc40477bc2adceef4d2c90f47eb82/uploads/2023/05/2023\\_051279.pdf](https://cdnbbsr.s3waas.gov.in/s3a70dc40477bc2adceef4d2c90f47eb82/uploads/2023/05/2023_051279.pdf)

Tank Irrigation in India: Future Management Strategies and Investment Options -  
<https://www.nabard.org/auth/writereaddata/tender/2911220521paper-10-tank-irrigation-in-india-by-dr-palanisami.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO2	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)
CO3	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
W.AV	2.6	3.0	3.0	2.8	2.8	2.8	2.6	2.6	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	M(2)	S(3)	S(3)	S(3)	S(3)
CO3	M(2)	M(2)	M(2)	M(2)	S(3)
CO4	S(3)	S(3)	S(3)	S(3)	M(2)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)
W.AV	2.6	2.8	2.8	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

Semester – I				
DSE 1	Course code: 455 501	Computer Application for Data Analysis (E)	T	Credits: 4 Hours: 4
Unit-I				
<b>Objective 1</b>	<b>To provide exposure to the working knowledge about the computer</b>			
<b>Basic Knowledge of Computer:</b> Introduction to Operating System: Types and Versions of Operating System- Basic Knowledge of Internet: Creating Email Address, Sending and Getting E-mails, Features of Inbox, Attaching Images or Documents to E-mail.				
<b>Outcome 1</b>	<b>The students will be able to gain comprehensive knowledge of creating, sending and receiving e-mails</b>			<b>K2</b>
Unit-II				
<b>Objective 2</b>	<b>To provide exposure on the application of MS-Office</b>			
<b>MS-Office:</b> MS-Word: Creating, Opening and Saving Files– Editing and Formatting Text: Spell, Grammar Check and Thesaurus Check- Auto Correct- Creation of Tables and Volumes- Page Alignment, Mail Merger and Track Change Mode- MS-Power Point: Creating Slides, Editing Slides, Insert Table, Picture and Animation; Slide Show.				
<b>Outcome 2</b>	<b>The students will be able to understand the application of MS-Word and Power Point</b>			<b>K2</b>
Unit-III				
<b>Objective 3</b>	<b>To provide detailed understanding on the application of MS-Excel for economic analysis</b>			
<b>Data Download:</b> Data Search from Paid and Non-Paid Sources like NSSO, CSO, CACP, MOA, MOSPI, etc- Presentation of Data: Editing, Coding and Tabulating Data; Diagrammatic and Graphic Representation of Data- Processing Data- Online Journals– Sourcing of Online Research Articles from Various Publishers.				
<b>Outcome 3</b>	<b>The students will be able to use of MS-Excel for various purposes</b>			<b>K3</b>
Unit-IV				
<b>Objective 4</b>	<b>To provide a clear understanding about using SPSS in different estimations</b>			
<b>MS-Excel for Analysis:</b> Creating, Opening and Working with Data in MS-Excel Data Analysis: Mean, Median, Mode, Percentiles, Quartiles, Standard Deviation, Variance, Range Minimum, Maximum, Skewness, Kurtosis and Growth Model– Tables– Diagram- Computing NPV, BCR and IRR.				
<b>Outcome 4</b>	<b>The students will be able to estimate correlation and regression using SPSS</b>			<b>K2</b>
Unit-V				
<b>Objective 5</b>	<b>To provide an in-depth knowledge on the use of computer in economic analysis.</b>			
<b>Data Analysis using SPSS:</b> Basics of Data Analysis– Data Entry in SPSS – Importing Data from Non-SPSS File Format, Merging Data from Multiple files, Transforming Variables and Recoding Variables- Computing with SPSS- Preparation of Graphs with SPSS- Data Analysis: Descriptive Statistics, Growth Rates, Correlation and Regression Models.				
<b>Outcome 5</b>	<b>The students will be able to compute NPV, BCR, IRR using different packages.</b>			<b>K5</b>
<b>Suggested Readings</b>				
Ajai, S.G. & Gaur, S.S. (2009). <i>Statistical Methods for Practice and Research A Guide to Data Analysis Using SPSS</i> . Sage Publisher, New Delhi.				
Aldrich, J.O. & Cunningham, J.B. (2015). <i>Using SPSS</i> . Sage Publications, New Delhi.				

Croxton, F.E., Cowden, D.J., & Klein, S. (1988). *Applied General Statistics*. Prentice Hall of India, New Delhi.  
 Dhanasekaran, K. (2010). *Computer Application in Economics*. Vrinda Publications, New Delhi.  
 Gupta, S.P. (2021). *Statistical Methods* (46<sup>th</sup> ed.) S. Chand & Company, New Delhi.  
 Rajaraman, V. & Neeharika, A. (2014). *Fundamentals of Computers*. Prentice Hall of India, New Delhi.

**Online resources**

Computer Data Analysis <https://egyankosh.ac.in/bitstream/123456789/8394/1/Unit-19.pdf>  
 Introduction to Statistics and Data Analysis,  
[https://www.spps.org/cms/lib/MN01910242/Centricity/Domain/859/Statistics%20Text book.pdf](https://www.spps.org/cms/lib/MN01910242/Centricity/Domain/859/Statistics%20Text%20book.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)
CO4	M(2)	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)
CO5	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)
W.AV	2.6	2.4	2.8	2.8	3.0	2.8	2.6	2.8	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	M(2)
CO2	M(2)	M(2)	S(3)	S(3)	M(2)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.6	2.6	2.8	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

Semester – II					
Core 5	Course code: 455 201	Micro Economics – II	T	Credits: 5	Hours: 5
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To familiarise the theoretical foundation of the micro-economic theory</b>				
<b>Factor Pricing:</b> Neo-classical Approach: Marginal Productivity Theory, Product Exhaustion Theorem- Elasticity of Technical Substitution, Progress and Factor Shares– Theories of Distribution: Ricardo, Marx, Kalecki, Kaldor and Sraffa.					
<b>Outcome 1</b>	<b>The students will be able to the application of micro-economic theories on factor pricing and distribution</b>			<b>K1</b>	<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide exposure on the different approaches of factor pricing</b>				
<b>Equilibrium Analysis:</b> General and Partial Equilibrium- Walrasian Excess Demand and Input-Output Approaches- Existence, Stability and Uniqueness– Two Sector Model- Stopler-Samuelson Theory- Relationship between Output Mix and Real Factor Prices- Rybezynski Theory.					
<b>Outcome 2</b>	<b>The students will be able to the various issues on economic uncertainty</b>			<b>K2</b>	<b>K5</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a detailed understanding on equilibrium analysis</b>				
<b>Theory of Uncertainty:</b> Individual Behaviour towards Risk and Uncertainty: Risk Preference and Aversion– Sensitivity Analysis: Gambling and Insurance- Economics of Insurance: Cost and Risk, Risk Pooling, Spreading, Moral Hazard and Portfolio Selection– Optimal Consumption under Uncertainty– Game Theory: Non-Cooperative Games; Prisoner's Dilemma.					
<b>Outcome 3</b>	<b>The students will be able to the economics of information</b>			<b>K1</b>	<b>K2</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide exposure on the behaviour of risk and uncertainty</b>				
<b>Economics of Search:</b> Models- Efficient Market Hypothesis– Stochastic Model– Model of Inventory Demand– Market with Incomplete Information: Search and Transaction Costs, Economics of Information, Asymmetric Information, Moral Hazards and Adverse Selection.					
<b>Outcome 4</b>	<b>The students will be able to the importance of Game theory</b>			<b>K4</b>	<b>K5</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide an indepth understanding about the welfare economics.</b>				
<b>Welfare Economics:</b> Pigouvian Welfare Economics– Pareto Optimal Conditions– Value Judgments – Social Welfare Function– Compensation Principle– Inability to Obtain Optimum Welfare – Sen's Welfare Economics– Theory of Second Best– Arrow's Impossibility Theorem– Equity and Efficiency Trade Off.					
<b>Outcome 5</b>	<b>The students will be able to the application of welfare theories in real market situations.</b>			<b>K4</b>	<b>K5</b>
<b>Suggested Readings</b>					
Bryant, W.D.A. (2010). <i>General Equilibrium: Theory and Evidence</i> . World Scientific Publishing, Singapore.					
Gibbons, R. (1992). <i>Game Theory for Applied Economists</i> . Princeton University Press, New York.					
Koutsiyiannis, A. (2008). <i>Modern Microeconomics</i> . MacMillan, London.					

Layard, P.R.G. & Walters, A.W. (2001). *Microeconomic Theory*. McGraw Hill, London.  
Mandal, R.K. (2022). *Microeconomic Theory*. Atlantic Publishers, New Delhi.  
Mankiw, N.G. (2015). *Principles of Microeconomics*. Cengage India Private Limited, New Delhi.  
Menger, C. (2019). *Principles of Economics*. Ludwig von Mises Institute, Alabama, United States.  
Samuelson, P.A. & William, D.N. (2021). *Microeconomics*. Tata McGraw Hill, New Delhi.  
Stigler, G. (1996). *Theory of Price*. Prentice Hall of India, New Delhi.  
Varian, H.R. (2019). *Microeconomic Analysis*. W.W. Norton and Company, New York.

**Online resources**

[https://edisciplinas.usp.br/pluginfile.php/4292722/mod\\_resource/content/1/%288th%20Edition%29%20%28The%20Pearson%20Series%20in%20Economics%29%20Robert%20Pindyck%2C%20Daniel%20Rubinfeld-Microecon.pdf](https://edisciplinas.usp.br/pluginfile.php/4292722/mod_resource/content/1/%288th%20Edition%29%20%28The%20Pearson%20Series%20in%20Economics%29%20Robert%20Pindyck%2C%20Daniel%20Rubinfeld-Microecon.pdf)

<https://gargicollege.in/wp-content/uploads/2020/03/Karl-E.-Case-Ray-C.-Fair-Sharon-M.-Oster-Principles-of-Economics-10th-Edition-The-Pearson-Series-in-Economics-.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO2	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	M(3)	S(3)
CO3	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)
CO4	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)
CO5	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)
W.AV	2.6	2.4	2.2	2.8	3.0	2.6	2.6	2.2	2.6	3.0

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	S(3)	M(2)	S(3)
CO2	S(3)	S(3)	M(2)	M(2)	S(3)
CO3	S(3)	S(3)	M(2)	S(3)	S(3)
CO4	M(2)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	M(2)	M(2)
W.AV	2.4	2.8	2.6	2.2	2.8

S-Strong (3), M-Medium (2), L-Low (1)

Semester – II					
Core 6	Course code: 455 202	Macro Economics – II	T	Credits: 5	Hours: 5
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide a deeper understanding on the theories of business cycle</b>				
<b>Theories of Business Cycle:</b> Keynesian Theory of Business Cycles- Samuelson's Model- Interaction Between Multiplier and Accelerator- Hicks Theory – Discretionary Fiscal Policy for Stabilization – Financing Increases in Government Expenditure- Reduction in Taxes to overcome Recession - Fiscal Policy to Control Inflation- Crowding-out Effect and Effectiveness of Fiscal Policy- Tools of Monetary Policy – Monetary Policy to Cure Recession.					
<b>Outcome 1</b>	<b>The students will be able to the macro economic theories</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To exhort the students to understand the theories of economic growth</b>				
<b>Theories of Economic Growth:</b> Technological Progress and Economic Growth – The Growth of Population – Capital Output Ratio- Income Effect and Capacity Effect – Impact of Increase in the Saving Rate- Effect of Population Growth – Long-run Growth and Technological Change – Endogenous Growth Model- Investment in Human Capital – Kuznets Curve.					
<b>Outcome 2</b>	<b>The students will be able to the nexus between inflation and unemployment</b>				<b>K2 K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To familiarise the management of macro economy</b>				
<b>Government and Macro Economy:</b> Public Expenditure – Growth of Public Expenditure – Effects of Public Expenditure on Production and Distribution - Characteristics of a Good Tax System – Problem of Equity in Taxation – Benefits Received Theory – Ability to Pay Theory – Shifting the Burden of a Tax – Incidence of Tax and Elasticity of Demand – Elasticity of Supply – Tax and Cost Conditions of the Industry – Mobilization of Resources for Capital Formation –Fiscal Policy and Price Stability – Budget Deficit – Fiscal Deficit – Measures to Reduce Fiscal Deficit.					
<b>Outcome 3</b>	<b>The students will be able to the issues of budget preparation</b>				<b>K4 K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide an in-depth understanding on the relationship between inflation and unemployment</b>				
<b>Inflation and Unemployment:</b> Meaning, Measures and Types of Inflation- Inflation in India – The Economic Effects of Inflation – The Classical and Neo Classical Theories of Inflation – The Keynesian Theory of Inflation - The Monetarist View on Inflation - Measures to Control Inflation – Inflation and the Rate of Unemployment- Modifications in Phillips Curve – Policy Dilemma: What is Desirable Inflation or Unemployment?					
<b>Outcome 4</b>	<b>The students will be able to the measurements of poverty and inequality</b>				<b>K4 K5</b>

<b>Unit-V</b>		
<b>Objective 5</b>	<b>To impart knowledge in the various macro-economic models which would help the students to integrate them with theory</b>	
<b>Poverty and Inequality:</b> Measures of Poverty – Absolute and Relative Poverty – Sen’s Index – Capability Approaches – Income and Asset Distribution – Lorenz Curve - Gini Concentration Ratio – Patrimonial, Casino, Crony Capitalism – Income Distribution.		
<b>Outcome 5</b>	<b>The students will be able to contemporary perspectives on the role of government policy.</b>	<b>K4 K5</b>
<b>Suggested Readings</b>		
Carlin, W. & Soskice, D. (2014). <i>Macro Economics: Institutions, Instability and the Financial System</i> . Oxford University Press, London.		
David, R. (2019). <i>Advanced Macroeconomics</i> . McGraw Hill Higher Education, London.		
Dornbusch, R. Fischer, S & Startz, R. (2013). <i>Macroeconomics</i> . McGraw Hill, New York.		
Dornbusch, R., Fischer, S., & Richard, S. (2018). <i>Macro Economics</i> . Tata McGraw Hill Publishing Company Limited, New Delhi.		
Levacic, R. & Rebmann, A. (2003). <i>Macro Economics: An Introduction to Keynesian - Neoclassical Controversies</i> . Palgrave Macmillan, London.		
Piketty, T. (2017). <i>Capital in the Twenty First Century</i> . The Belknap Press of Harvard University Press, Cambridge.		
Mankiw, N.G. & Taylor, M. P. (2017). <i>Macroeconomics</i> . Cengage India Private Limited, New Delhi.		
Wickens, M. (2012). <i>Macroeconomic Theory: The Dynamic General Equilibrium Approach</i> . Princeton University Press, New York.		
<b>Online resources</b>		
<a href="http://196.188.170.250:8080/jspui/bitstream/123456789/2228/1/Macroeconomics%20Theory%20and%20Policy-Pearson%20Education%20%282010%29%20Vanita%20Agarwal%20-.pdf">http://196.188.170.250:8080/jspui/bitstream/123456789/2228/1/Macroeconomics%20Theory%20and%20Policy-Pearson%20Education%20%282010%29%20Vanita%20Agarwal%20-.pdf</a>		
<a href="https://www.bu.edu/econ/files/2014/08/DLS1.pdf">https://www.bu.edu/econ/files/2014/08/DLS1.pdf</a>		
K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create		
<b>Course Designed by: Dr.A.Narayanamoorthy</b>		

#### Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)
CO2	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)
CO3	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	S(3)
CO4	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)
W.AV	2.2	2.2	2.4	2.6	2.8	2.2	2.2	2.8	2.2	3.0

S-Strong (3), M-Medium (2), L-Low (1)



**Course Outcome VS Programme Specific Outcomes**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO1</b>	M(2)	S(3)	M(2)	S(3)	S(3)
<b>CO2</b>	M(2)	S(3)	M(2)	S(3)	S(3)
<b>CO3</b>	M(2)	M(2)	S(3)	M(2)	S(3)
<b>CO4</b>	S(3)	S(3)	M(2)	S(3)	S(S3)
<b>CO5</b>	M(2)	S(3)	M(2)	S(3)	S(3)
<b>W.AV</b>	2.2	2.8	2.2	2.8	3.0

S-Strong (3), M-Medium (2), L-Low (1)



Semester - II					
Core 7	Course code: 455 203	Indian Economic Development	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide exposure on the basic characteristics of Indian economy</b>				
<b>Overview:</b> State of the Economy at the Beginning of the Fifties - Policy of Planned Development – Growth and Structural Change till the Eighties – New Economic Policy – Performance of the Economy since 1991 – Major Aspects of Transformation.					
<b>Outcome 1</b>	<b>The students will be able to the development process in India since independence</b>			<b>K2</b>	<b>K4</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To familiarise the role of agricultural sector in economic development</b>				
<b>Agricultural and Rural Sector:</b> Review of Agricultural Growth – Green Revolution – Review Price and Other Policies - Policy Initiatives needed in relation to Agriculture and Rural Sector – Non-Farm Activities, Diversification and Exports – Impact of Liberalisation and WTO; Investment in Agriculture and Irrigation – Water Policy.					
<b>Outcome 2</b>	<b>The students will be able to the changes in the contribution of different sectors to GDP</b>			<b>K2</b>	<b>K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide details on the contribution of various sectors to economic development</b>				
<b>Industrial, Service and Infrastructure Sectors:</b> The Growth and Maturing of Indian Industry since Liberalisation – Productivity Growth and Rise in Competitiveness – Exports – Rise of Service Industry – India and I.T. – Policy regarding Public Enterprises – Disinvestment – Impact of WTO and Trade Liberalisation – State of Infrastructure – Promoting Investment in Infrastructure– Public-Private Partnership.					
<b>Outcome 3</b>	<b>The students will be able to why the agricultural sector’s contribution is declining</b>			<b>K4</b>	<b>K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide exposure to the state of human resource development</b>				
<b>Social Development:</b> Human Development Indicators - Review of Change since early Fifties, Wide Regional Variations – Poverty Reduction Measures in India – Demographic Transition – Regional Differences – Health Services, Health Policy, Education Policy, Financing of Health and Education – Employment and Unemployment Trends: Employment Guarantee Scheme – Long-term Policy to reduce Poverty and Unemployment – MDGs - SDGs.					
<b>Outcome 4</b>	<b>The students will be able to HDI and its nexus with economic development</b>			<b>K4</b>	<b>K5</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide details on the importance of savings and investment for economic growth.</b>				
<b>Savings and Capital Formation:</b> Growth Trends- Monetary and Fiscal Policy Management- NITI Aayog- External Sector: Trade Policy, FDI, Exchange Rate Management- Investment Climate – Competition Policy – Human Development – Strategies for Sustainable Development at a High Rate.					
<b>Outcome 5</b>	<b>The students will be able to the real state of savings and capital formation over time.</b>			<b>K4</b>	<b>K5</b>

**Suggested Readings**  
 Alamgir, J. (2010). *India's Open Economy Policy: Globalism, Rivalry, Continuity*. Routledge, London.  
 Basu, K. (2004). *India's Emerging Economy: Performance and Prospects in the 1990s and Beyond*. MIT Press, Cambridge.  
 Joshi, V. & Little, I.M.D. (2018). *India's Economic Reforms 1991-2001*. Oxford University Press, New Delhi.  
 Kanungo, R.P., Rowley, C., & Banerjee, A.N. (2018). *Changing the Indian Economy: Renewal, Reform and Revival*. Elsevier Asian Studies Series, Netherland.  
 Kapila, U. (2020). *Indian Economy since Independence*. Academic Foundation, New Delhi.  
 Pulin, N. (2015). *The Economic Development of India*. Routledge, London.  
 Rangarajan, C. (2004). *Select Essays on Indian Economy*. Vol.1 & 2. Academic Foundation, New Delhi.  
 Rothermund, D. (1998). *An Economic History of India from Pre-Colonial Times to 1991*. Routledge, New York.

**Online resources**  
[https://afeias.com/wpcontent/uploads/2019/04/class11\\_economics\\_english.pdf](https://afeias.com/wpcontent/uploads/2019/04/class11_economics_english.pdf)  
<https://oeclass.aua.gr/eclass/modules/document/file.php/AOA245/Economic%20Development%20-%20Todaro%20and%20Smith.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)
CO5	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)
W.AV	2.0	2.8	2.6	2.2	2.0	2.0	3.0	2.4	2.2	3.0

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	S(3)	M(2)	M(2)	S(3)
CO3	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	M(2)	S(3)
W.AV	2.4	2.6	2.2	2.0	3.0

S-Strong (3), M-Medium (2), L-Low (1)

Semester - II					
Core 8	Course code: 455 204	Indian Financial Institutions and Markets	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide details on the functioning of money markets</b>				
<b>Introduction to Money:</b> Simple Exposition to Money Demand and Money Supply - RBI and Measures of Money Supply - Commercial Banks and Credit Creation - RBI Control on Money Supply - Time Value of Money and Interest Rates.					
<b>Outcome 1</b>	<b>The students will be able to understand the role and function of the financial system</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To familiarise the functioning of capital markets</b>				
<b>Introduction to Indian Financial System:</b> Overview of Indian Financial System - Functions of Financial System - Players - Structure and Growth - RBI and other Regulatory Bodies.					
<b>Outcome 2</b>	<b>The students will be able to evaluate and create strategies to promote financial products and services</b>				<b>K5 K6</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a deeper understanding on the state of foreign exchange markets</b>				
<b>Money and Capital Markets:</b> Indian Money Market - Instruments - Institutions - Functioning of Indian Money Market - Changes in the Regulatory Framework - Growth - Stocks and Bonds - Primary and Secondary Markets - Process of Initial Public Offer - Offer of Government Bonds - Stock Market Functioning - Stock Indices - Evaluation of Stocks and Bonds - Understanding Stock Market Information.					
<b>Outcome 3</b>	<b>The students will be able to clearly understand the functioning of India's stock markets</b>				<b>K2</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a detailed understanding about the role of RBI in financial markets</b>				
<b>Foreign Exchange Market:</b> Exchange Rate - Types - Determination of Exchange Rate - Nature of FOREX Market - Nature of FOREX Inflow and Outflow - Examples of ECBs and NREs - RBI and Exchange Rate Management.					
<b>Outcome 4</b>	<b>The students will be able to evaluate the financial markets</b>				<b>K4 K5</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide an in-depth understanding on the overall nature and functions of the financial institutions in the Indian financial markets.</b>				
<b>Financial Derivatives:</b> Need for Derivatives - Types of Derivatives - Example of How Stock Index Derivatives could be used to Hedge Risks in Stock Market Investment - Evaluation of Financial Derivatives – Foreign Exchange Derivatives and Swaps.					
<b>Outcome 5</b>	<b>The students will be able to understand the significance of foreign exchange market in reference to the macro economy.</b>				<b>K2</b>
<b>Suggested Readings</b>					
Bhole, L.M. & Mahakud, J. (2017). <i>Financial Institutions and Market: Structure, Growth &amp; Innovation</i> . Tata McGraw Hill Ltd, New Delhi.					
Fabozzi, F.J., Modigliani, F.P., & Jones, F.J. (2013). <i>Foundations of Financial Markets and Institutions, International Edition</i> . Pearson Higher Education, New York.					
Goldstein, M. (2006). <i>Financial Regulation after the Subprime and Credit Crisis</i> . Peterson institute, Washington, D.C.					

Khan, M.F. (2019). *Indian Financial Institutions*. Tata McGraw Hill Ltd, New Delhi.  
 Kidwell, D.S., Blackwell, D.W., Whidbee, D.A., & Sias, R.W. (2016). *Financial Institutions, Markets, and Money*. Wiley Publication, New York.  
 Madura, J. (2014). *Financial Markets and Institutions*. Thomson Publications, Singapore.  
 Pathak, B.V. (2018). *The Indian Financial System*. Pearson Education India, New Delhi.

**Online resources**

<https://www.himpub.com/documents/Chapter1321.pdf>

[http://ebooks.lpude.in/commerce/mcom/term\\_3/DCOM304\\_DCOM503\\_INDIAN\\_FINANCIAL\\_SYS TEM.pdf](http://ebooks.lpude.in/commerce/mcom/term_3/DCOM304_DCOM503_INDIAN_FINANCIAL_SYS TEM.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)
CO2	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)
CO3	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	M(2)
CO5	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)
W.AV	2.8	2.0	2.2	2.8	2.0	2.0	2.4	3.0	2.2	2.0

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	M(2)	S(3)	S(3)
CO2	S(3)	M(2)	M(2)	M(2)	S(3)
CO3	M(2)	S(3)	M(2)	S(3)	S(3)
CO4	S(3)	S(3)	M(2)	M(2)	S(3)
CO5	S(3)	S(3)	M(2)	S(3)	S(3)
W.AV	2.8	2.8	2.0	2.6	3.0

S-Strong (3), M-Medium (2), L-Low (1)

Semester – II					
DSE 2	Course code: 455 502	Econometrics (E)	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To exhort the students to understand why the assumptions are followed in different econometric models</b>				
<b>Basic Econometrics:</b> Introduction – Econometrics - Nature, Meaning and Scope of Econometrics - Economic theory and Econometrics - Methodology of Econometrics - Uses of Econometrics.					
<b>Outcomes 1</b>	<b>The students will be able to estimate the models using econometrics software</b>			<b>K4</b>	<b>K5</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide training on using the application of econometrics in microeconomics</b>				
<b>OLS:</b> Assumptions – Violations of OLS Assumptions – Reasons, Cause, Effects, Solutions – Heteroscedasticity, Auto Correlation and Multicollinearity – Identification of Variables – Models – Predictability - Biases – BLUE.					
<b>Outcomes 2</b>	<b>The students will be able to export and import data from different files</b>			<b>K2</b>	<b>K3</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide training to use the application of econometrics in macroeconomics</b>				
<b>Applications in Microeconomics:</b> Consumer Demand Analysis: Specification and Estimation of Demand Equations – Estimation of Engel Curves – Estimation of Complete Systems of Demand Equations – Production Analysis: Specification and Estimations of Production Functions: Cobb-Douglas, CES and Translog, Measurement of Multifactor Productivity.					
<b>Outcomes 3</b>	<b>The students will be able to apply the results in real world economic issues</b>			<b>K3</b>	<b>K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide training on identifying the use of various econometrics software</b>				
<b>Applications in Macroeconomics:</b> Demand for Money - Term Structure of Interest Rates - Phillips Curve - Exchange Rate and Purchasing Power Parity.					
<b>Outcomes 4</b>	<b>The students will be able to interpret the results of estimated model</b>			<b>K5</b>	<b>K6</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To strengthen the application of basic econometrics in various economic analysis.</b>				
<b>Use of Econometrics Software:</b> Uploading Raw Data - Summary Statistics - OLS Method: Model Specification, Estimation, Interpretation, Diagnostic Checks - Time Series Analysis: Unit Root Tests, Co-integration Analysis, Estimation of VAR Model - Panel Data Analysis.					
<b>Outcomes 5</b>	<b>The students will be able to derive statistical inferences from the economic models using statistical software</b>			<b>K4</b>	<b>K5</b>
<b>Suggested Readings</b>					
Gujarathi, D., Porter, D.C., & Pal, M. (2017). <i>Basic Econometrics</i> . Tata McGraw Hill, New Delhi.					
Hatekar, R. N. (2010). <i>Principles of Econometrics: An Introduction (Using R)</i> . Sage Publications, India.					

Maddala, G.S. & Lahiri, K. (2012). *Introduction to Econometrics*. John Wiley & Sons, New York.

Patterson, K. (2001). *An Introduction to Applied Econometrics - A Time Series Approach*. MacMillan Press Ltd, London.

Pindyck, R.S. & Rubinfeld, D.L. (1998). *Econometric Models and Economic Forecasts*. Irwin McGraw-Hill, New York.

Ramanathan, R. (2005). *Introductory Econometrics with Applications*. S. Chand Company India Pvt. Ltd, New Delhi.

Thomas, R.L. (1993). *Introductory Econometrics: Theory and Applications*. Longman, London.

Wooldridge, J.M. (2019). *Introductory Econometrics: A Modern Approach*. Cengage Learning India Pvt. Ltd, New Delhi.

**Online resources**

[https://economics.ut.ac.ir/documents/3030266/14100645/Jeffrey\\_M.\\_Wooldridge\\_Introductory\\_Econometrics\\_A\\_Modern\\_Approach\\_2012.pdf](https://economics.ut.ac.ir/documents/3030266/14100645/Jeffrey_M._Wooldridge_Introductory_Econometrics_A_Modern_Approach_2012.pdf)

[https://www.cbpbu.ac.in/userfiles/file/2020/STUDY\\_MAT/ECO/1.pdf](https://www.cbpbu.ac.in/userfiles/file/2020/STUDY_MAT/ECO/1.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)
CO3	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)
CO4	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)
W.AV	2.0	2.0	3.0	2.2	2.0	2.6	2.0	2.0	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	M(2)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	M(2)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	M(2)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	M(2)	M(2)
W.AV	2.0	2.4	3.0	2.0	2.0

S-Strong (3), M-Medium (2), L-Low (1)

Semester - III					
Core 9	Course code: 455 301	Public Finance	T	Credits: 4	Hours: 5
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To strengthen the conceptual framework of public finance</b>				
<b>Fiscal Functions and Public Good:</b> Various Economic Systems - Need and Growth of Public Sector – Price Policy of Public Enterprises (Marginal Cost Theory, Average Cost Theory, Peak-load Pricing, Administered Price) – Major Fiscal Functions – Allocation, Distribution and Stabilisation Function – Private, Public Goods, Provision of Public Goods – Mixed Goods - Regulation of Market.					
<b>Outcome 1</b>	<b>The students will be able to understand the fiscal functions and public goods</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide exposure on theoretical dimensions of public finance</b>				
<b>Taxation and Budgetary Theory:</b> Incidence and Its Measurement – Shifting and Elasticity of Demand – Incidence of Tax – Perfect, Monopoly and Monopolistic Competition – Brown-Roplh approach – Budgetary Procedure – Techniques – Budgetary Theory – Classical and Modern Approaches – Budget Multiplier – Recent Concepts on Budgets.					
<b>Outcome 2</b>	<b>The students will be able to understand the importance of taxation theories that can be used in the real world situations</b>				<b>K3 K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a deeper understanding on the approaches of taxation theory</b>				
<b>Principles of Public Expenditure:</b> Pure Theory of Public Expenditure – Pigou and Ability-to-Pay Theory – Benefit Principles; (a) Public Choice Theory (b), Samuelson’s Pure Theory (c) Lindhal’s Voluntary Exchange Theory (d) Arrow’s Impossibility Theorem and Players of Political Game – Mechanisms of Public Choice – Collective Decision Making.					
<b>Outcome 3</b>	<b>The students will be able to present a coherent arguments orally and in writing on budgetary and principles of public expenditure</b>				<b>K5 K6</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a detailed understanding about the theories of public expenditure</b>				
<b>Evaluation of Public Expenditure:</b> Welfare Foundations - Cost Benefit Analysis – Maximisation of Total Benefits (Fixed Budget, Variable Budget), Long-term Projects and Discounting – Effects of Public Expenditure on Production, Distribution, Economic Stabilisation and Growth.					
<b>Outcome 4</b>	<b>The students will be able to deal with issues of public debt</b>				<b>K2</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To familiarise the policy underpinnings of core public economics.</b>				
<b>Public Debt and Fiscal Federalism:</b> Public Debt – Methods of Raising Public Debt – Effect of Public Debt – Public Debt Management – Fiscal Federalism – Local Bodies – Sources of Finance – Constitutional Amendment –Centre – State Financial Relations in India – Financial Inclusion and Schemes - Powers and Functions of Finance Commission – Recommendations of 15 <sup>th</sup> Finance Commission – Fiscal Policy and Price Stability - Public Finance in Pandemic Time.					
<b>Outcome 5</b>	<b>The students will be able to deal with public debt and fiscal federalism.</b>				<b>K4</b>



**Suggested Readings**

Atkinson, A. & Stiglitz, J. (1980). Lectures in Public Economics, McGraw Hill, London.  
 Auerbach, A. & Feldstein, M. (1987). Handbook of Public Economics. (Vol. 1&2). North Holland, Amsterdam.  
 Chelliah, R.J. (2004). Trends in Federal Finance. NIPFP, New Delhi.  
 Finance Commission of India. (2020). Report of Fifteenth Finance Commission for 2021-26. Finance Commission of India, New Delhi.  
 Friedman, M. (1959). A Monetary and Fiscal Framework for Economic Stability, in Essays in Positive Economics. University of Chicago, Chicago.  
 Government of India (various years). Economic Survey. Ministry of Finance, New Delhi.  
 Moore, W.S. & Penner, R. (1980). The Constitution and the Budget. American Enterprise Institute, Washington.  
 Musgrave, R.A. (1959). The Theory of Public Finance. McGraw Hill, New York.  
 Musgrave, R.A. and Musgrave, P.B. (2016). Public Finance in Theory and Practice. Tata McGraw Hill, New Delhi.  
 Peacock, A. (1979). The Economic Analysis of Governments. St. Martin Press, New York.  
 Sury, M.M. (2020). Public Economics. New Century Publication, New Delhi.

**Online resources**

<https://sisis.rz.htw-berlin.de/inh2008/109607.pdf>

<https://ia800202.us.archive.org/21/items/introductiontop04plehgoog/introductiontop04plehg oog.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO3	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO5	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.2	2.0	2.2	2.6	2.2	2.0	2.4	2.0	2.2	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	M(2)	M(2)	S(3)	M(2)
CO2	S(3)	M(2)	S(3)	S(3)	M(2)
CO3	M(2)	M(2)	S(3)	S(3)	S(3)
CO4	M(2)	M(2)	M(2)	M(2)	S(3)
CO5	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.2	2.0	2.4	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

Semester - III					
Core 10	Course code: 455 302	Development Economics	T	Credits: 4	Hours: 4
Unit-I					
<b>Objective 1</b>	<b>To provide details on the concepts of development economics</b>				
<b>Concepts and Issues in Economic growth:</b> Distinction between Economic Growth and Economic Development – Factors of Economic Growth: Economic and Non-Economic – Characteristics of Modern Economic Growth – Inter-relations among Modern Economic Growth – Obstacles of Economic Development and Growth.					
<b>Outcome 1</b>	<b>The students will be able to demonstrate about the inequalities between rich and poor countries</b>			<b>K4</b>	<b>K5</b>
Unit-II					
<b>Objective 2</b>	<b>To familiarise the important issues of economic growth</b>				
<b>Economic Development:</b> Harrod–Domar Growth Model – Strategy of Economic Development – Big Push Strategy – Inducement to Invest – Nurksian, Singer’s and Hirschman’s Doctrine – Mahalanobis Strategy.					
<b>Outcome 2</b>	<b>The students will be able to study the variations in per capita income, economic growth, poverty and inequality</b>			<b>K2</b>	
Unit-III					
<b>Objective 3</b>	<b>To provide detailed training on development models and theories</b>				
<b>Theories of Economic Growth and Development (Modern and Partial):</b> The Neoclassical Growth Model with and without Technical Progress: Kaldor, Mirrlees, Solow, Denison, Abramovitz and Kendrick– Partial Theories: Rosentein-Roden, Nelson, Rostow– Dual Theory: Lewis, Ranis and Fei model, Jorgenson, Dixit and Marglin Model.					
<b>Outcome 3</b>	<b>The students will be able to understand the major growth theories and models</b>			<b>K2</b>	
Unit-IV					
<b>Objective 4</b>	<b>To provide a deeper understanding on various planning models</b>				
<b>Planning and Development:</b> Concept – Types of Planning – Policy Models – Projection Models – Development Planning Models – The Wage Goods model in Development Planning – Input-Output Analysis in Planning and Development – Linear Programming and Development Planning.					
<b>Outcome 4</b>	<b>The students will be able to judge the usefulness of planning and development policies</b>			<b>K4</b>	<b>K5</b>
Unit-V					
<b>Objective 5</b>	<b>To provide details on the developmental policies followed in India.</b>				
<b>Policies and Development:</b> LPG Model – PURA – Pricing Policy – Labour and Wage Policy – Agriculture and Industrial Policy – Foreign Trade Policy – Fiscal and Monetary Policy – Inclusive Growth.					
<b>Outcome 5</b>	<b>The students will be able to demonstrate the familiarity with the issues of economic development.</b>			<b>K5</b>	
<b>Suggested Readings</b>					
Ahmed, W., Kundu, A. & Peet, R. (2012). <i>New Economic Policy in India</i> . Routledge, Taylor and Francis, Abingdon.					
Foley, D.K., Michl, T.R., & Tavani, D. (2019). <i>Growth and Distribution</i> . Harvard University Press, Cambridge.					
Ghatak, S. (2003). <i>An Introduction to Development Economics</i> . Allen & Unwin, London.					
Higgins, B. (1959). <i>The Theory of Economic Growth</i> . George Allen & Unwin, London.					

Kapila, U. (2019). *Indian Economy performance and Policies*. Academic Foundation, New Delhi.

Myrdal, G. (2008). *Asian Drama: An Inquiry into the Poverty of Nations*. Kalyani Publishers, New Delhi.

Ray, D. (1999). *Development Economics*. Princeton University Press, New York.

Suntum, U.V. (2004). *The Invisible Hand: Economic Thought Yesterday and Today*. Springer, Germany.

Szirmai, A. (2005). *Dynamics of Socio Economic Development-An Introduction*. Cambridge University Press, Landon.

**Online resources**  
<https://oeclass.aua.gr/eclass/modules/document/file.php/AOA245/Economic%20Development%20-%20Todaro%20and%20Smith.pdf>  
[https://ebookbou.edu.bd/Books/Text/SOB/MBA/mba\\_4334/Unit-01.pdf](https://ebookbou.edu.bd/Books/Text/SOB/MBA/mba_4334/Unit-01.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

### Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)
CO2	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)
CO3	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)
CO4	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)
CO5	S(3)	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)
W.AV	2.4	2.4	2.2	2.6	2.6	2.4	2.4	2.6	2.4	2.4

S-Strong (3), M-Medium (2), L-Low (1)

### Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	S(3)	M(2)	S(3)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	M(2)	S(3)	M(2)	M(2)
W.AV	2.6	2.4	2.6	2.4	2.8

S-Strong (3), M-Medium (2), L-Low (1)

Semester - III					
Core 11	Course code: 455 303	Research Methodology	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide detailed understanding on various kinds of research methods</b>				
<b>Scientific Research Method:</b> Definition – Purpose and Principles of Scientific Method, Steps in Scientific Research – Ethical issues in research– Types of Research: Applied and Action Research, Qualitative and Quantitative Research, Development Policy and Participatory Research - Theory and Facts.					
<b>Outcome 1</b>	<b>The students will be able to identify and formulate research issues easily</b>				<b>K2 K3</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To familiarise the rules of scientific research method</b>				
<b>Process of Research:</b> Identification and Formulation of Research Problem – Criteria in Selection of Topic- Literature Review — Objectives and Hypothesis – Role and Functions – Independent and Dependent Variables - Concepts and Model Building.					
<b>Outcome 2</b>	<b>The students will be able to design and execute research plans satisfactorily</b>				<b>K2 K3</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide an in-depth understanding on the identifying the research problem</b>				
<b>Methods of Research:</b> Research Design and its Components – Exploratory, Descriptive and Experimental Methods of Research – Social Survey Method – Case Study Method - Cross Sectional and Longitudinal Research - Historical Method.					
<b>Outcome 3</b>	<b>The students will be able to carry out a detailed literature survey</b>				<b>K2 K3</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a detailed understanding about the process and techniques involved in carrying out research</b>				
<b>Tools of Data Collection and Analysis: Types of Data:</b> Quantitative and Qualitative – Continues and Discrete - Primary and Secondary Data Sources – National Sample Survey and Census – Internet Sources – Sampling Techniques - Methods of Data Collection: Interview Method, Focus Group Discussion – Designing Schedule and Questionnaire – Pre-Test and Pilot Study – Validity and Reliability Scales – Analytical Table Data Cleaning.					
<b>Outcome 4</b>	<b>The students will be able to use appropriate methodologies in conducting primary and secondary data based studies</b>				<b>K4 K5</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide adequate knowledge on writing a reasonable the research report.</b>				
<b>Report Writing:</b> Format of Research Report – Types of Reports - Analysis and Interpretation of Data – Inference - Footnotes and Endnotes – Citations – References and Bibliography – Glossary – Proof Checking – Summary Preparation - Finalisation of Research Report, Impact Factor – ‘h’ index.					
<b>Outcome 5</b>	<b>The students will be able to write a good research report following scientific principles.</b>				<b>K3 K6</b>

**Suggested Readings**

- Acharyya, R. & Bhattacharya, N. (2019). Research Methodology for Social Sciences. Routledge, New Delhi.*
- Bhandarkar, P.L. & Wilkinson, T.S. (2016). Methods and Techniques of Social Research. Himalaya Publishing House, Mumbai.*
- Ghosh, B.N. (2015). Scientific Method and Social Research. Sterling Publishers, New Delhi.*
- Gupta, S.P. (2021). Statistical Methods. S. Chand & Company, New Delhi.*
- Kent, R. (2001). Data Construction and Data Analysis for Survey Research. MacMillan, London.*
- Kerlinger, F.N. (2017). Foundation of Behavioral Research. Rinehard & Winstion, New York, NY.*
- Kishnaswamy, O.R. & Ranganatham, M. (2016). Methodology of Research in Social Sciences. Himalaya Publishing House, Mumbai.*
- Kothari, C.R. & Garg, G. (2019). Research Methodology: Methods and Techniques. New Age International Publishers, New Delhi.*
- Kumar, R. (2019), Research Methodology: A Step-by-Step Guide for Beginners. Sage Publishers, New Delhi.*
- Young, P.V. (2012). Scientific Social Survey and Research: An Introduction to the Background, Content, Methods and Analysis of Social Studies. Prentice Hall, New Delhi.*

**Online resources**

- <https://ccsuniversity.ac.in/bridge-library/pdf/Research-Methodology-CR-Kothari.pdf>
- <https://euacademic.org/BookUpload/9.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

Course Designed by: Dr.A.Narayanamoorthy

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)
CO2	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)
CO3	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)
CO4	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)
CO5	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)
W.AV	2.6	2.8	2.6	2.6	2.6	2.4	2.6	2.6	2.6	2.4

S-Strong (3), M-Medium (2), L-Low (1)

### Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	M(2)	S(3)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	S(3)	S(3)	S(3)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)
W.AV	2.6	2.6	2.6	2.6	2.4

S-Strong (3), M-Medium (2), L-Low (1)



Semester - III					
Core 12	Course code: 455 304	International Economics	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide a detailed understanding about the main economic theories relating to international trade</b>				
<b>Theories of International Trade:</b> Absolute Advantage, Comparative Advantage and Opportunity Cost - Heckscher – Ohlin Theory – Leontief Paradox – Stolper Samuelson Theorem – Factor Price Equalisation Theorem – Community Indifference Curve – Equilibrium in terms of Trade Offer Curves – Concepts of Terms of Trade. Gains from Trade: Static Gains and their Measurement- Welfare of Individual Countries-Samuelson's Gains from Trade –Dynamic Gains.					
<b>Outcomes 1</b>	<b>The students will be able to the theories of international trade</b>				<b>K2 K4</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To familiarise the issues on foreign exchange</b>				
<b>Foreign Exchange:</b> Importance – Types of Foreign Exchange – J-Curve Concept - Fixed Exchange Rate and Bretton Woods System- Demise of Bretton Woods System – Currency Convertibility – The Foreign Trade Multiplier – The Reverse Working of Foreign Trade Multiplier - International Flows of Goods and Capital – The Mundell - Fleming Model.					
<b>Outcome 2</b>	<b>The students will be able to the gross gains from trade and differentiate standard, classical and orthodox trade theories</b>				<b>K2</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide exposure to the issues on balance of payments</b>				
<b>Balance of Payment:</b> Balance of Payment; Concept and Importance – Balance of Trade and Balance of Payments: Overall Balance of Payments - Equilibrium and Disequilibrium in the Balance of Payments - Balance of Payments Adjustment Mechanism- Expenditure Switching Policy - Expenditure Changing Policy - Recent Trends of Balance of Payments in Developing Countries, with Special Reference to India.					
<b>Outcome 3</b>	<b>The students will be able to the problems of balance of payments</b>				<b>K4</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide exposure on the trade policies</b>				
<b>Trade Policies:</b> Free Trade; Concept and Case for Free Trade – Protection: Meaning and Argument towards Protection – Stolper-Samuelson Theorem – Rybczynski Theorem – Tariffs, Terms of Trade and Domestic Prices - Tariff: Classification, Effects of Tariffs – Quota: Objectives, Types, Effects and Reasons for Imposing Quota – Dumping: Kinds, Effects and Essential Conditions for Dumping.					
<b>Outcome 4</b>	<b>The students will be able to the importance of foreign trade</b>				<b>K2</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide exposure on the economics of regional co-operation.</b>				
<b>Regional Economic Co-Operation and IMF:</b> FDI and MNCs – European Union – GATT – UNCTAD – BRICS – QUAD - SAARC – ASEAN – WTO – New International Economic Order – IMF – IBRD – IDA – Asian Development Bank – New Development Bank - Euro Currency Market- G8 – G20 – G7 – I2U2.					
<b>Outcome 5</b>	<b>The students will be able to the impact of regional cooperation on the domestic economy.</b>				<b>K5</b>

**Suggested Readings**

Bhagwati, J. N., Panagariya, A. & Srinivasan, T. N. (1998). *Lectures on International Trade*. The MIT Press, Massachusetts, United States.

Carbaugh, R. J. (2019). *International Economics*. Cengage Learning, United States.

Cherunilam, F. (2017). *International Economics*. The McGraw-Hill, New Delhi.

GoI, (Various issues). *Annual Reports of Trade*. Ministry of Commerce and Industries, Government of India, New Delhi.

Krugman, P.R., Obstfeld, M. & Melitz, M. J. (2012). *International Economics: Theory & Policy*. Addison-Wesley, New Delhi.

Levi, M.D. (2009). *International Finance: The Markets and Financial Management of Multinational Business*. Routledge, New Delhi.

Salvatore, D. (2016). *International Economics*. John Wiley & Sons, Singapore.

**Online resources**

<https://ccsuniversity.ac.in/bridge-library/pdf/Dominick-Salvatore-International-Economics.pdf>

[https://wyamaka.files.wordpress.com/2019/08/international-economics\\_30.pdf](https://wyamaka.files.wordpress.com/2019/08/international-economics_30.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO2	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)
CO3	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)
CO5	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.4	2.6	2.6	2.4	2.6	2.6	2.4	2.4	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	S(3)	S(3)	S(3)	M(2)
CO3	M(2)	M(2)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	M(2)	S(3)	M(2)
CO5	S(3)	M(2)	M(2)	M(2)	S(3)
W.AV	2.6	2.4	2.4	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)



Semester – III					
DSE 3	Course code: 455 503	Statistical Analysis (E)	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the various statistical methods</b>				
<b>Measures of Central Tendency and Dispersion:</b> Mean, Median and Mode– Empirical Relationship between Mean, Median and Mode; Measures of Dispersion– Range, Mean Deviation, Quartile Deviation, Standard Deviation and Coefficient of Variation– Skewness.					
<b>Outcome 1</b>	<b>The students will be able to understand and apply descriptive and inferential statistical techniques</b>				<b>K3</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide exposure on the application of statistical methods in socio-economic analysis</b>				
<b>Correlation and Regression Analysis:</b> Correlation Analysis: Scatter Diagram, Karl Pearson’s Coefficient of Correlation; Rank Correlation, Spearman’s Coefficient of Rank Correlation; Application of Correlation in Empirical Works– Regression: Difference between Correlation and Regression, Fitting Regression Lines (between two variables), Regression Coefficients; Application of Regression in Empirical Works.					
<b>Outcome 2</b>	<b>The students will be able to test hypothesis</b>				<b>K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a deeper understanding on the estimation of correlation and regression using various data sets</b>				
<b>Probability:</b> Mathematical and Statistical probability: Events, Addition and Multiplication Theorems– Definition and Properties of Normal, Binomial, Poisson, Chi- square, ‘t’ and ‘F’ tests (Basic Concepts and Simple Problems) – ANOVA, MANOVA.					
<b>Outcome 3</b>	<b>The students will be able to estimate correlation and regression</b>				<b>K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a detailed understanding about the probability theories and their usefulness</b>				
<b>Estimation:</b> Point Estimation, Four Properties of Point Estimator, Interval Estimation (Concept only)– Tests of Significance: Test for Mean Difference (Small and Large Samples) – Proportion and Difference between Proportions (for Large Sample Variances Numerical Problems only)– Chi-square Tests and its Applications– Goodness of Fit.					
<b>Outcome 4</b>	<b>The students will be able to use excel and SPSS to generate results using data sets</b>				<b>K3 K6</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide training to the use of computer software in statistical analysis.</b>				
<b>Computer Applications:</b> Data Entry and Processing using Excel– Downloading Data from Internet and its Conversion into Application- Computing Mean, Median, Mode, Standard Deviation and CV using Excel – Creating and Modifying Graphs and other Charts – Computing Growth Rate- Correlation and Regression using SPSS.					
<b>Outcome 5</b>	<b>The students will be able to apply the statistical results for academic and policy related works.</b>				<b>K3</b>
<b>Suggested Readings</b>					
Agarwal, Y.P. (2012). <i>Statistical Methods: Concepts, Applications and Computations</i> . Sterling Publishers, New Delhi.					
Grewal, P.S. (1990). <i>Methods of Statistical Analysis</i> . Sterling Publishers, New Delhi.					
Gujarati, D., Porter, D.C., & Pal, M. (2017). <i>Basic Econometrics</i> . Tata McGraw Hill, New Delhi.					

Gupta, C.B. & Gupta, V. (2009). *An Introduction to Statistical Methods*. Vikas Publishers, New Delhi.

Gupta, S.C. (2021). *Fundamentals of Statistics*. Himalaya Publishing House, Mumbai.

Gupta, S.P. (2021). *Statistical Methods*. S. Chand & Company, New Delhi.

Miller, I. & Miller, M. (2015). *Mathematical Statistics with Applications*. Pearson Education Limited, New York

Mood, A.M., Graybill, R.A., & Boes, R.C. (2017). *Introduction to the Theory of Statistics*. McGraw-Hill, New Delhi.

Nagar, A.L. & Das, R.K. (2006). *Basic Statistics*. Oxford University Press, New Delhi.

Spiegel, M.R. & Constable, R.L. (1992). *Theory and Problems of Statistics*. McGraw-Hil, Singapore.

**Online resources**  
<https://www.statsref.com/StatsRefSample.pdf>  
<https://hastie.su.domains/Papers/ESLII.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)
CO2	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)
CO3	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)
CO4	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	M(2)
CO5	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)
W.AV	2.6	2.4	2.6	2.6	2.4	2.4	2.4	2.4	2.4	2.4

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	M(2)	S(3)	M(2)
CO2	M(2)	S(3)	S(3)	S(3)	S(3)
CO3	M(2)	M(2)	S(3)	M(2)	S(3)
CO4	M(2)	M(2)	M(2)	M(2)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	M(2)
W.AV	2.4	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

Semester - IV					
Core 13	Course code: 455 401	Monetary Economics	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding about the monetary theories</b>				
<b>Monetary Theories:</b> The Quantity Theory of Money – The Classical and Keynesian Theory – Milton Friedman’s Quantity Theory – Don Patinkin’s Integration Theory- Tobin’s Portfolio Analysis – Baumol’s Inventory Approach – Gurley and Shaw Thesis – Radcliffe Committee – Sayer’s Thesis.					
<b>Outcome 1</b>	<b>The students will be able to explain the usefulness of major monetary theories</b>			<b>K1</b>	<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide an exposition about the money supply and banking theories</b>				
<b>Money Supply and Banking:</b> Money Supply Components (M1, M2, M3 and M4) and Determinants of Money Supply – High Powered Money – Riefler and Burgess Hypothesis on Money Supply (UK, USA – Non-Bank Financial Intermediaries)- Credit Creation by Commercial Banks and Monetary Transmission – Central Bank and Credit Control – Narasimham Committee Recommendations – Autonomy of RBI, MPC.					
<b>Outcome 2</b>	<b>The students will be able to understand the main channels of monetary transmission mechanism</b>			<b>K2</b>	<b>K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a detailed account on theories of interest</b>				
<b>Theories of Interest:</b> Classical and Neoclassical Theory of Interest – Modigliani Stock Vs Flow Analysis – Structure of Rate of Interest – Segmented Market Theory, Liquidity Premium, Portfolio Behavior Theory – Expectation Theory (Yield Curve – Short-run and Long-run.)					
<b>Outcome 3</b>	<b>The students will be able to understand the money market and capital market</b>			<b>K2</b>	<b>K4</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide an explanation about money market and capital market</b>				
<b>Money Market and Capital Market:</b> Features of Capital and Money Markets – Characteristics of Undeveloped and Developed Money Market – Indian Money Market: Treasury Bills – CRR, SLR, Repo Rate (Repurchase)- Capital Market: Primary and Secondary Markets – NPAs- Capital Asset Pricing Model, William Sharpe – Markowitz model on Risk and Return – Alpha and Beta Securities – Stock Exchange: BSE and NSE– SEBI – Derivatives, Hedging, Swap (Only Concepts).					
<b>Outcome 4</b>	<b>The students will be able to grasp the real effects monetary policies on the economy</b>			<b>K2</b>	<b>K3</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide a details about various core monetary policies and its usefulness in real world situation.</b>				
<b>Monetary Policy:</b> Role of Monetary Policy in Developing Economy – Lags in Monetary Policy – Monetary Vs Fiscal Policy, the Great Debate – Inflation – Inflationary Gap – Stagflation – Philips Curve - Samuelson and Solow Model – Impact of Financial Sector Reforms in India – Efforts to Unearth Block Money.					
<b>Outcome 5</b>	<b>The students will be able to use the tools of monetary policy in real world situation.</b>			<b>K2</b>	<b>K3</b>

**Suggested Readings**

Dewett, K.K. (2006). *Modern Economic Theory*. S. Chand Company Pvt. Ltd, New Delhi.  
 Dornbusch, R., Fischer, S. & Richard, S. (2013). *Macro Economics*. Tata McGraw Hill Publishing Company Limited, New Delhi.  
 McCallum, B.T. (1989). *Monetary Economics: Theory and Policy*, Macmillan.  
 McConnell, C.R. & Gupta, H.C. (1987). *Introduction to Macro Economics*. Tata McGraw Hill Publishing Company Ltd, New Delhi.  
 Pierce, D.G. & Tysome, P.J. (1985). *Monetary Economics: Theories, Evidence and Policy*. Butterworths, London.  
 Walsh, C.E. (2017). *Monetary Theory and Policy*. MIT Press, Cambridge, Massachusetts.

**Online resources**

[https://cdn.mises.org/International%20Monetary%20Economics\\_2.pdf](https://cdn.mises.org/International%20Monetary%20Economics_2.pdf)  
[https://www.spektro-bi.org/uploader/100219~\[Carl E. Walsh\] Monetary Theory and Policy, Third \(b-ok.org\).pdf](https://www.spektro-bi.org/uploader/100219~[Carl_E._Walsh]_Monetary_Theory_and_Policy,_Third_(b-ok.org).pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)
CO2	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO3	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)
CO4	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)
CO5	S(3)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	2.6	2.4	2.6	2.6	2.6	2.6	2.6	2.8	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	S(3)	S(3)	M(2)	M(2)
CO3	S(3)	M(2)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	M(2)	S(3)	M(2)	S(3)	M(2)
W.AV	2.6	2.8	2.8	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)

Semester - IV					
Core 14	Course code: 455 402	Agricultural Economics	T	Credits: 4	Hours: 4
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide exposure to the development of agricultural economy</b>				
<b>Agriculture and Economic Development:</b> Nature and Scope - Traditional Vs. Modern Agriculture – Green Revolution and its Impact - Sustainable Agriculture and Organic Farming – Interdependence between Agriculture and Industry - Agrarian Crisis - Farm subsidy - Experiences of Developed and Developing Countries.					
<b>Outcome 1</b>	<b>The students will be able to the interdependence between agriculture and industry</b>			<b>K2</b>	<b>K4</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide details on the issues relating to the cropping pattern</b>				
<b>Cropping Pattern and Corporate Farming:</b> Cropping Pattern and its Dynamics – Mono Cropping - Cropping Intensity and its Determinants - Economic Logic of Cropping Pattern – Recent Trends in Agriculture: GM Crops and its Economics – Corporate Farming.					
<b>Outcome 2</b>	<b>The students will be able to the key concepts like productivity, production function analysis, marketable surplus and marketed surplus</b>			<b>K1</b>	<b>K2</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To familiarise the changing pattern of inputs use</b>				
<b>Agriculture Inputs and Productivity:</b> Land and its Utilization – Seed and its Importance - Irrigation Sources and Development – Mechanization and its Impact on Labour – Fertiliser and its Impact on Productivity – Trends in Production and Productivity of Crops - Production Function Analysis in Agriculture – Farmers’ Suicides.					
<b>Outcome 3</b>	<b>The students will be able to the nexus between private and public capital formation in farm sector</b>			<b>K2</b>	<b>K4</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a deeper understanding on the agricultural finance and capital formation</b>				
<b>Agricultural Finance and Capital Formation:</b> Need for Agricultural Finance – Sources of Agricultural Finance: Non-institutional and Institutional Sources - Indebtedness: Meaning, Reasons and Impact - Farm Capital Structure and its Changes – Relationship between Public and Private Investment.					
<b>Outcome 4</b>	<b>The students will be able to the credit supply and indebtedness</b>			<b>K3</b>	<b>K4</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide exposure to the state of agricultural markets and prices.</b>				
<b>Agricultural Markets and Prices:</b> Characteristics of Primary Agricultural Markets in India - Marketable Surplus and Marketed Surplus – Marketing Agencies and Channels - Agricultural Price in India: Objectives and Instruments of Agricultural Price Policy – Cost Concepts - Role of CACP – Supply Response – WTO and Agricultural Exports – Farm Profitability in India.					
<b>Outcome 5</b>	<b>The students will be able to the instrument of agriculture price policy and its impact.</b>			<b>K4</b>	<b>K5</b>

**Suggested Readings**

Bhaduri, A. (1984). *The Economic Structure of Backward Agriculture*. MacMillan, New Delhi.

Bhalla, G. S and G. Singh (2001). *Indian Agriculture: Four Decades of Development*. Sage Publications, New Delhi.

Dantwala, M.L. (1992). *Indian Agricultural Development since Independence*. Oxford and IBH, New Delhi.

Gualti, A. & Kelly, T. (1999). *Trade Liberalisation and Indian Agriculture*. Oxford University Press, New Delhi.

Kahlon, A.S. & Tyagi, D.D. (1983). *Agriculture Price Policy in India*. Allied Publishers, New Delhi.

Puri. V.K., Misra, S.K. & Garg, B. (2022). *Indian Economy: It's Development Experience*. Himalaya Publishing House, New Delhi.

Rao, C.H.H. (2006). *Agriculture, Food Security, Poverty, and Environment: Essays on Post-reform India*. Oxford University Press, New Delhi.

**Online resources**

[http://students.aiu.edu/submissions/profiles/resources/onlineBook/n3W6L4\\_Introduction%20to%20agricultural%20economics-2018.pdf](http://students.aiu.edu/submissions/profiles/resources/onlineBook/n3W6L4_Introduction%20to%20agricultural%20economics-2018.pdf)

[https://zalamsyah.files.wordpress.com/2018/02/2-principles-of-agricultural-economics\\_andrew-barkley-paul-w-barkley.pdf](https://zalamsyah.files.wordpress.com/2018/02/2-principles-of-agricultural-economics_andrew-barkley-paul-w-barkley.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)
CO3	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)
CO4	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)
CO5	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)
W.AV	2.6	2.6	2.6	2.6	2.6	2.6	2.4	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO1</b>	S(3)	M(2)	S(3)	M(2)	S(3)
<b>CO2</b>	M(2)	S(3)	M(2)	S(3)	M(2)
<b>CO3</b>	S(3)	M(2)	S(3)	M(2)	S(3)
<b>CO4</b>	M(2)	S(3)	S(3)	M(2)	M(2)
<b>CO5</b>	S(3)	S(3)	M(2)	S(3)	S(3)
<b>W.AV</b>	2.6	2.6	2.6	2.4	2.6

S-Strong (3), M-Medium (2), L-Low (1)



Semester - IV					
Core 15	Course code: 455 403	Environmental Economics	T	Credits: 4	Hours: 4
Unit-I					
Objective 1	To provide an in-depth understanding on the intricacies of benefit-cost analysis				
<b>Introduction:</b> Environment – Eco-system – Nexus between Ecology and Economics – The Principle of Material Balance – Trade-off between Economic Growth and Sustainable Development – Limits to Growth – Climate Change - Global Warming – Environmental Issues in different Economic Systems.					
Outcome 1	The students will be able to the link between economic principles and environmental issues				K2
Unit-II					
Objective 2	To provide details on the environmental monitoring				
<b>Cost Benefit Analysis:</b> Environmental Pollution – Sources and Types of Pollution – Pareto Optimality – Externality – Social Cost and Efficiency- Divergence between Social and Private Cost – Problem of Second Best – Environmental Impact Assessment – Cost-Benefit Analysis.					
Outcome 2	The students will be able to the usefulness of benefit-cost analysis				K3
Unit-III					
Objective 3	To provide exposure to the various methods of environment evaluation				
<b>Externalities and Environmental Monitoring:</b> Environmental Externalities – Pigouvian Taxes and Subsidies- Pollution Permits and Mixed Instruments (The Charges and Standards Approach) – Coase’s Bargaining Solution and Collective Action- Informal Regulation and the New Model of Pollution Control- Monitoring and Enforcement of Environmental Regulations.					
Outcome 3	The students will be able to the ways in which the key concepts are used in applied policy analysis				K3 K5
Unit-IV					
Objective 4	To familiarise the importance of environment policies				
<b>Methods of Valuation:</b> User Values, Option Values and Non-use Values; Valuation Methods – Methods based on Observed Market Behaviour; Hedonic Property Values and Household Production Models (Travel Cost Method and Household Health Production Function), Methods based on Response to Hypothetical Markets, Contingent Valuation Method – Cost Based Methods.					
Outcome 4	The students will be able to how to use various methods of environment evaluation				K3 K5
Unit-V					
Objective 5	To provide exposure on the relation between economy and environment.				
<b>Environment Policy:</b> Policy Measures: Basic Approaches to Environmental Policy – Regulation and Effluent Fees: A Comparison – Distributive Effects of Environmental Policy – International Environmental Policy – India’s Environmental Policy – Law on Environmental Protection and Pollution Control in India.					
Outcome 5	The students will be able to the impact of climate change on the environment.				K2 K2



**Suggested Readings**

Barry, C.F. (1994). *Environmental Economics*. McGraw Hill. Ince International, Singapore.  
 Butin, J.A. (2019). *The Economics of Environmental and Natural Resource Policy*.  
 Routledge. Taylor and Francis, New York.  
 Centre for Science and Environment (various issues). *Citizens Report on Environment*.  
 Centre for Science and Environment, New Delhi.  
 Chand, A. (1985). *Environmental Challenges*. UPH Publishers, New Delhi.  
 Goldberg, J. (1992). *Economics and the Environment*. Chelsea House Publishers, New York.  
 Kneese, V.A., Ayres, R.U., & Ralph, C.A. (2015). *Economics and the Environment: A  
 Materials Balance Approach*. Routledge. Taylor and Francis, Abingdon, UK.  
 Robert, E.A. (1983). *Man and Environment*. Penguin Books, New York.

**Online resources**

[https://www.uio.no/studier/emner/sv/oekonomi/ECON4925/h16/pensumliste/txtbook\\_3.ed\\_at\\_t00106.pdf](https://www.uio.no/studier/emner/sv/oekonomi/ECON4925/h16/pensumliste/txtbook_3.ed_at_t00106.pdf)

[https://library.uoh.edu.iq/admin/ebooks/1871-siebert-economics\\_of\\_the\\_environment-9783540737063.pdf](https://library.uoh.edu.iq/admin/ebooks/1871-siebert-economics_of_the_environment-9783540737063.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

Course Designed by: **Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)
CO2	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)
CO3	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO4	S(3)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO5	M(2)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)
W.AV	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.4

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	M(2)	M(2)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	S(3)	M(2)
CO4	S(3)	S(3)	M(2)	S(3)	M(2)
CO5	S(3)	M(2)	S(3)	M(2)	S(3)
W.AV	2.6	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

## List of Elective Courses

<b>DSE 4</b>	<b>Course code: 455 504</b>	<b>Energy Economics</b>	<b>T</b>	<b>Credits: 4</b>	<b>Hours: 4</b>
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the role of energy in economic activity</b>				
<b>Introduction to Energy Economics:</b> Natural Resources: Importance; Role of Natural Resources in Economic Development– Energy Resources: Types and Classification, Properties of Energy, Forms of Energy– Emergence of Energy Economics: Its Scope and Nature; Energy Indicators – Energy Economics and its relations with other Branches.					
<b>Outcome 1</b>	<b>The students will be able to the importance of energy economics and auditing</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide details on the economic methods of assessing energy technologies</b>				
<b>Energy and Development:</b> Role of Energy in Economic Development – Energy Intensity and Elasticity - National and International Comparison – Low, Middle and High Income Economies – Role of International Institutions: OPEC, IEA and World Bank.					
<b>Outcome 2</b>	<b>The students will be able to the efficiency and conservation of energy</b>				<b>K4</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide exposure to the nexus between energy and development</b>				
<b>Energy and Environment:</b> Energy crisis: Causes and Consequences, Remedial measures – Environmental Crisis: Causes and Consequences; Impact of Energy Consumption and Production on Environment – Role of Energy and Environmental Economists in solving Energy Crisis.					
<b>Outcome 3</b>	<b>The students will be able to the role of energy in economic development</b>				<b>K3</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To familiarise the problems and issues concerned with energy</b>				
<b>Energy Conservation and Energy Management:</b> Energy Planning and Energy Conservation: Meaning, Objectives and Importance– Energy Management: Meaning, Objectives and Importance – Recent Developments: Energy Auditing, Energy Accounting, Energy Pricing and Taxes– Sustainable Energy Management.					
<b>Outcome 4</b>	<b>The students will be able to the impact of increased use of energy on development</b>				<b>K4</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide exposure on the importance of energy conservation and its economics.</b>				
<b>India's Energy Profile:</b> Indian Energy Sector– Organizational Structure – Energy Supply (Coal, Oil, Gas and Power by Hydro, Nuclear, Thermal) – Energy Demand for Agriculture, Industry, Transport and Domestic – Renewable Energy Sources and Technology – Renewable Energy Programmes – Energy Generation under Five Year Plans – Energy Issues and Policy Options for India.					
<b>Outcome 5</b>	<b>The students will be able to the key factors to be considered in evaluating alternative energy policy options.</b>				<b>K3 K4</b>

**Suggested Readings**

Agarwal, S.K. (1985). *Environment and Natural Resources Economics*. Scott Foresman Company, London.

Common, M. (1985). *Environmental and Resource Economics*. Longman, London.

Government of India, *10th and 11th Five Year Plan Documents*, Planning Commission of India, New Delhi.

Munasinghe, M. & Meier, P. (2008). *Energy Policy and Modeling*. Cambridge University Press, UK.

Rao, H. (1990). *Rural Energy Crisis: A Diagnostic Analysis*. Ahish Publishing House, New Delhi.

TERI (2021). *Energy & Environment Data Diary and Yearbook*. The Energy Research Institute, New Delhi.

William, B. (Ed.) (1997). *Readings in Ecology, Energy and Human Society: Contemporary Perspectives*. Harper and Row, New York.

**Online resources**

[file:///C:/Users/ADMIN/Downloads/kupdf.net\\_energy-economics-theory-and-applicationspdf.pdf](file:///C:/Users/ADMIN/Downloads/kupdf.net_energy-economics-theory-and-applicationspdf.pdf)

[file:///C:/Users/ADMIN/Downloads/energy-economics-1nbsped-0415676770-9780415676779\\_compress.pdf](file:///C:/Users/ADMIN/Downloads/energy-economics-1nbsped-0415676770-9780415676779_compress.pdf)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO2	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)
CO4	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	M(2)
W.AV	2.6	2.6	2.6	2.8	2.8	2.4	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	S(3)	S(3)	S(3)	M(2)
CO3	M(2)	S(3)	M(2)	S(3)	S(3)
CO4	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	M(2)	M(2)	S(3)	M(2)	M(2)
W.AV	2.4	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

<b>DSE 5</b>	<b>Course code: 455 505</b>	<b>Industrial Economics</b>	<b>T</b>	<b>Credits: 4</b>	<b>Hours: 4</b>
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the the development of industrial economy</b>				
<b>Role of Industries in Development:</b> Concepts of Industrial Economics - Rational of Industrialization - Need, Importance and Role of Industries in Economic Development - Linkages between Industry and Agriculture Sectors - Industrial Development - Evolution of Industries in India - Experience of Developed and Developing Countries.					
<b>Outcome 1</b>	<b>The students will be able to realize the importance of industrial development</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide details on the entrepreneurs and industry relationship</b>				
<b>Entrepreneurs and Industry:</b> Definition of Industrial Entrepreneurs- Entrepreneurial Motivation - Types, Characteristics and Functions - Role of Entrepreneurs in Economic Development - Role of Women Entrepreneurs in the Industrial Development - Rural Entrepreneurship Development in India - Institutional Finance to Entrepreneurs Development- Problems of Industrial Entrepreneurs.					
<b>Outcome 2</b>	<b>The students will be able to understand the factors which influence industrial growth</b>				<b>K2</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide exposure to the industrial location and its related theories</b>				
<b>Industrial Location:</b> Determinants of Industrial Location: Technical Factors, Economic and Infrastructural Factors, Other Factors- Theories of Industrial Location: Central Place Theory of Christaller and Losch - Renner's Theory, Rawstron's Principles, Weber's Theory, the Market Area Theory of Tord Palander, - Recent trends of Industrial Location in India.					
<b>Outcome 3</b>	<b>The students will be able to comprehend the nexus between the location and industrial growth</b>				<b>K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To familiarise the significance of industrial finance</b>				
<b>Finance for Industries:</b> Significance of Finance to Industrial Development - Owned, and External Funds for Industrial Development- Role and Types of Institutional Finance - Functions of IFCI, IDBI, SIDBI, MSFC, ICICI, SFCs, SIDCs, IIBI, Commercial Banks, etc., in Industrial Development- Industrial Finance in India its Trends and Problems.					
<b>Outcome 4</b>	<b>The students will be able to recognize how industrial finance helps increasing the development of industry</b>				<b>K3</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide exposure on the issues faced by the Indian Industries.</b>				
<b>Current Issues in Industrial Development:</b> Recent Trends in Industrial Growth in India - Growth of Major Industries: Cotton Textiles, Iron and Steel, Jute, Sugar, Coal, Cement and Engineering Goods - Development and Problems of Small - Scale Industries in India- Role of Public and Private Sectors in India - Effects of Liberalization on Industrial Development in India - Role of MNCs in Industrial Development- Remedies for Sick Industries- Industrial Policy of India before and after 1990s.					
<b>Outcome 5</b>	<b>The students will be able to understand the current issues and trends in industrial development in India.</b>				<b>K5</b>

**Suggested Readings**

Ahluwalia, I.J. (1985). *Industrial Growth in India*. Oxford University Press, New Delhi.  
 Barthwal, R.R. (2010). *Industrial Economics: An Introductory*. Wiley Eastern Ltd, New Delhi.  
 Brahmananda, P.R. and V.R. Panchamukhi. (1987). *The Development Process of the Indian Economy*. Himalaya Publications, New Delhi.  
 Cherunilam, F. (1994). *Industrial Economics: Indian Perspective*. Himalaya Publishing House, Mumbai.  
 Datt & Sundaram (2021). *Indian Economy*. S. Chand Publication, New Delhi.  
 Dutt, G. & A. Mahajan (2016). *Indian Economy*. S. Chand Publishing, New Delhi.  
 Kidwell, D.D., Blackwell, D.W., Whidbee, D.A., & Sias, R.W. (2011). *Financial Institutions. Markets, and Money*. John Wiley and Sons, New Jersey, United States.  
 Kuchhal, S.C. (1980). *Industrial Economy of India*. Chaitanya Publishing House, Allahabad.  
 Losch, A. (1954). *The economics of location*. Yale University Press, New Haven.  
 Reserve Bank of India. *Report on Currency and Finance (Annual)*. Government of India, New Delhi.

**Online resources**

[https://sde.uoc.ac.in/sites/default/files/sde\\_videos/Industrial%20Economics\\_0.pdf](https://sde.uoc.ac.in/sites/default/files/sde_videos/Industrial%20Economics_0.pdf)  
<http://dspace.mit.edu/bitstream/handle/1721.1/48172/industrialeconom00schm.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)
CO2	S(3)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)
CO3	S(3)	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)
CO4	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	M(2)
W.AV	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.4

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

<b>CO</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>	<b>PSO5</b>
<b>CO1</b>	M(2)	S(3)	M(2)	M(2)	S(3)
<b>CO2</b>	S(3)	S(3)	M(2)	M(2)	S(3)
<b>CO3</b>	M(2)	S(3)	S(3)	S(3)	M(2)
<b>CO4</b>	S(3)	M(2)	S(3)	S(3)	M(2)
<b>CO5</b>	S(3)	M(2)	S(3)	S(3)	S(3)
<b>W.AV</b>	2.6	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)



<b>DSE 6</b>	<b>Course code: 455 506</b>	<b>Project Planning and Evaluation</b>	<b>T</b>	<b>Credits: 4</b>	<b>Hours: 4</b>
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the basic concepts of project planning and evaluation</b>				
<b>Project - Basic Concepts:</b> Project: Concept, Characteristics, Classification – Project Life Cycle – Identification and Sources of Project – Framing the Objectives of Project.					
<b>Outcome 1</b>	<b>The students will be able to prepare the project proposals</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide details on the methodology for preparing project proposals</b>				
<b>Project Formulation:</b> Methodology – Project Feasibility Analysis: Techno-Economic Feasibility, Input Feasibility, Project Design, Network Feasibility and Financial Feasibility, Project Social Cost Benefit Feasibility– Pre-Investment Report.					
<b>Outcome 2</b>	<b>The students will be able to carry out project monitoring works</b>				<b>K5</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To familiarise the project monitoring</b>				
<b>Project Appraisal:</b> Methodology – Appraisal of Different Feasibility Analysis – Criteria for Project Appraisal – Discounted and Un-discounted Techniques.					
<b>Outcome 3</b>	<b>The students will be able to conduct the feasibility study of projects using appropriate methodology</b>				<b>K5</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a deeper understanding on the methodology of project appraisal</b>				
<b>Project Monitoring:</b> Methodology – Aspects to be Covered – Designing and Operating the Monitoring System – Tools – Rate of Disparity and Milestone Approach.					
<b>Outcome 4</b>	<b>The students will be able to use the discounted techniques to find out the viability of the project</b>				<b>K4</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide training on evaluating the projects of all aspects.</b>				
<b>Project Evaluation:</b> Need for Evaluation – Criteria for Evaluation- Performance indicators – Impact of the Project – Evaluating the Worthiness of Project – Project Replication.					
<b>Outcome 5</b>	<b>The students will be able to critically evaluate the projects of all aspects and present a project plan.</b>				<b>K5</b>
<b>Suggested Readings</b>					
Gittinger, J. P. (1984). <i>Economic Analysis of Agricultural Projects</i> . The Johns Hopkins University Press, London.					
Lettle, I.M.D. & Mirreles, J.A. (1974). <i>Project Appraisal and Planning for Developing Countries</i> . Oxford and INH Publishing Co, New Delhi.					
Mathoo, P.K. (1978). <i>Project Formulation in Developing Countries</i> . South Asia Books, New Delhi					
Mishra, S.N. & Beyer, V. (1978). <i>Cost Benefit Analysis – Case study of Ratnagiri Fisheries Project</i> . Hindustan Publishing Corporation, New Delhi.					
Moder, J.J. & Philips, C.R. (1964). <i>Project Management with C.P.M and PERT</i> . Reinhold Publishing Corp, Nelyor.					
Pandey, I.M. (2021). <i>Financial Management</i> . Vikas Publishing, New Delhi.					
Prasanna, C. (1987). <i>Project-Preparation Appraisal Budgeting and Implementation</i> . Tata Mc Grow Hill, New Delhi.					

Puttaswamaiah, K. (1980). <i>Project, Evaluation Criteria and Cost-Benefit Analysis</i> . Oxford and IBH Publishing, New Delhi.
<b>Online resources</b> <a href="file:///C:/Users/ADMIN/Downloads/Project%20Management%20Skills%20for%20All%20Careers.pdf">file:///C:/Users/ADMIN/Downloads/Project%20Management%20Skills%20for%20All%20Careers.pdf</a> <a href="file:///C:/Users/ADMIN/Downloads/Project%20Management.pdf">file:///C:/Users/ADMIN/Downloads/Project%20Management.pdf</a>
K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create
<b>Course Designed by: Dr.A.Narayanamoorthy</b>

#### Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO2	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)
CO4	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
W.AV	2.6	2.8	2.6	2.6	2.8	2.8	2.8	2.6	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

#### Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	M(2)	S(3)	M(2)	S(3)	M(2)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	M(2)	M(2)	S(3)
CO5	M(2)	M(2)	S(3)	S(3)	M(2)
W.AV	2.6	2.8	2.6	2.8	2.6

S-Strong (3), M-Medium (2), L-Low (1)



<b>DSE 6</b>	<b>Course code: 455 507</b>	<b>Dynamics of Rural Development</b>	<b>T</b>	<b>Credits: 4</b>	<b>Hours: 4</b>
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an overall understanding about the rural development</b>				
<b>Structure, Growth and Development:</b> Genesis of Rural Development – Conceptual Framework – Objectives, Scope, Importance and Indicators of Rural Development – Rural Development Administrative Structure – Infrastructure –Education, Health, Electricity, Roads, Markets, Urban Connectivity.					
<b>Outcome 1</b>	<b>The students will be able to gain insights into the socio-economic structure of rural India</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide an exposure on the theories of rural development</b>				
<b>Theories and Dimension of Poverty:</b> Theories Applicable to Rural Development - Balanced vs. Unbalanced Growth, Lewis Theory of Surplus Labour, Dualistic theories, Trickle-down theory, Myrdal's Backwash Effect Theory – Poverty: Concept and Dimensions; Measurement of Poverty – Causes and Consequences of Poverty – Trends and Determinants.					
<b>Outcome 2</b>	<b>The students will be able to understand the prospects and problems of rural development programmes</b>				<b>K2</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a detailed account on the dimensions of rural poverty</b>				
<b>Rural Development Programmes:</b> Integrated Rural Development Programme (IRDP), TRYSEM and DWCRA - Swarnajayanti Gram Swarozgar Yojana (SGSY) – Sampoorna Grameen Rozgar Yojana (SGRY) – Rural Housing Schemes (IAY & PMGSY) – Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP) - National Social Assistance Programme: NOAPS, NMBS, NFBS.					
<b>Outcome 3</b>	<b>The students will be able to familiar with the role of non-governmental organizations in rural development</b>				<b>K3</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To provide a comprehensive understanding about various rural development programmes</b>				
<b>Voluntary Organization as Change Agent in Rural Development:</b> VOs vs. NGOs – Typology – Strategies of development oriented NGOs – VOs and Five Year Plans – Guidelines to VOs – Role of NGOs in Rural Development - Problems faced by NGOs.					
<b>Outcome 4</b>	<b>The students will be able to understand the trends and determinants of rural poverty comprehensively</b>				<b>K3</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide an in-depth understanding on the development scenarios of rural economy with a special focus on India.</b>				
<b>Participatory Development:</b> Significance, Concept and Meaning – Approaches to People's Participation – Supply Leading Vs. Demand Driven Approach - Types of People's Participation; Strategies to Promote People's Participation – Social Capital: Definition, Types and Role in Rural Development.					
<b>Outcome 5</b>	<b>The students will be able to recognise the importance of voluntary organizations and participatory approach in rural development.</b>				<b>K2</b>
<b>Suggested Readings</b>					
Government of India. (Various issues). <i>Five Year Plans</i> . Planning Commission of India, New Delhi.					
Jhingan, M.L. (2016). <i>Economics of Development and Planning</i> . Vrinda Publications, New Delhi.					

Lalitha, N. (2004). *Rural Development: Trends and Issues*. (Vol. I & II.). Dominant Publishers, New Delhi.

Maheswari, S.R. (1995). *Rural Development in India - A Public Policy Approach*. Sage Publications, New Delhi.

Narayanasamy, N. (2009). *Participatory Rural Appraisal: Principles, Methods and Applications*. Sage Publications, New Delhi.

Reddy, V.K. (2018). *Rural Development in India*. Himalaya Publishing House, New Delhi.

Singh, H. (1995). *Administration of Rural Development in India*. Sterling, New Delhi.

**Online resources**  
<file:///C:/Users/ADMIN/Downloads/Migration,%20Agriculture%20and%20Rural%20Development.pdf>  
<file:///C:/Users/ADMIN/Downloads/1588557848-elgar-original-reference-gary-paul-green-gary-paul-green-handbook-of-rural-development-2014-edward-elgar-pub.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)
CO2	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO3	S(3)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	M(2)	M(2)	S(3)	S(3)	S(3)
CO3	S(3)	M(2)	S(3)	M(2)	M(2)
CO4	S(3)	S(3)	M(2)	S(3)	S(3)
CO5	S(3)	S(3)	M(2)	S(3)	S(3)
W.AV	2.8	2.6	2.6	2.8	2.8

S-Strong (3), M-Medium (2), L-Low (1)

<b>Semester – II</b>					
NME 1	Course code:	Economics for Competitive Examinations	T	Credits: 2	Hours: 3
<b>Unit-I</b>					
<b>Objective 1</b>	<b>To provide an in-depth understanding on the structure of the Indian economy</b>				
<b>Structure of the Indian Economy:</b> Indian Economy Since 1900s - National Income – Methods of Calculating National Income – VKRV Rao and Naoroji Contributions – Difficulties – Trends in National Income in India – Sectoral Contribution Since 1950 – Population Growth Since 1950s - Economic Development and Demographic Changes – Growth Rate, Death Rate, Birth Rate – 3 Stages.					
<b>Outcome 1</b>	<b>The students will be able to develop strong conceptual knowledge on the Indian economy</b>				<b>K2</b>
<b>Unit-II</b>					
<b>Objective 2</b>	<b>To provide details on the history of economic planning</b>				
<b>Economic Planning:</b> Policy Objectives of Planning– Types of Planning – History of Planning in India– Review and assessment of New Economic Policy and Liberalization, Privatization and Globalization.					
<b>Outcome 2</b>	<b>The students will be able to understand the various sectors of the economy</b>				<b>K2</b>
<b>Unit-III</b>					
<b>Objective 3</b>	<b>To provide a detailed understanding about the role of agricultural and industrial sectors in the economy</b>				
<b>Agriculture and Industrial Development:</b> Agricultural Development since 12 <sup>th</sup> century - under Five Year Plans- Structural Change- Impact of New Economic Policy (1991) – Industrial Development Under Five Year Plans – New Industrial Policy (1991). State-wise Agriculture and Industry.					
<b>Outcome 3</b>	<b>The students will be able to understand the role of fiscal policies in shaping the economy</b>				<b>K2 K4</b>
<b>Unit-IV</b>					
<b>Objective 4</b>	<b>To familiarise the importance of fiscal policies</b>				
<b>Banking and Fiscal Policy:</b> History of Indian Banking System – Functions of RBI – Nationalisation of Commercial Bank, Development Bank– Co-operative Bank– Stock Exchanges– India’s Fiscal Policy –Tax reform – Introduction of VAT - GST.					
<b>Outcome 4</b>	<b>The students will be able to acquire knowledge on various issues on foreign trade</b>				<b>K2</b>
<b>Unit-V</b>					
<b>Objective 5</b>	<b>To provide training on writing competitive examinations in the realm of economics.</b>				
<b>Foreign Trade:</b> India and the World Trade- Foreign Trade and Balance of Payment Since 1950s – Exchange Rate Policy – Foreign Capital and Foreign Ai – Meaning of MNCs – FEMA-India and WTO - Role of WTO – History of GATT, SAARC, ASEAN, BRICS.					
<b>Outcome 5</b>	<b>The students will be able to develop analytical skills to excel in different competitive examinations.</b>				<b>K3 K4</b>
<b>Suggested Readings</b>					
Dutt, G. & Mahajan, A. (2016). <i>Indian Economy</i> . S. Chand Publishing, New Delhi. Government of India (various issues). <i>Economic Survey of India</i> . Economic Division, Ministry of Finance. Government of India, New Delhi.					

Government of India (various issues). *Statistics and Abstract*. Ministry of Statistics and Programme Implementation. Government of India, New Delhi.

Gupta, K.R & Gupta, J.R. (2022). *Indian Economy*. Atlantic Publishers, New Delhi.

Puri, V.K. & Misra, S.K. (2020). *Indian Economy* (38<sup>th</sup>ed.). Himalaya Publishing House, New Delhi.

Sankaran, S. (2014). *Indian Economy*. Marghan Publications, Chennai.

**Online resources**  
<https://www.thephysicspoint.com/wp-content/uploads/2023/06/Indian-Economy-by-Ramesh-Singh-PDF.pdf>  
[https://drive.google.com/file/d/1O\\_sPXdDz1dvN9dWjhQ86aqTwTm7Oe6Vi/view](https://drive.google.com/file/d/1O_sPXdDz1dvN9dWjhQ86aqTwTm7Oe6Vi/view)

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)	S(3)
CO3	S(3)	S(3)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)	S(3)	M(2)
CO4	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO5	S(3)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)
W.AV	2.6	2.4	2.2	3.0	2.6	2.2	2.8	2.0	2.0	2.0

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	M(2)	M(2)	M(2)	S(3)
W.AV	2.2	2.4	2.4	2.0	2.8

S-Strong (3), M-Medium (2), L-Low (1)

Semester – III					
NME 2	Course code: 455 702	Statistics for Decision Making	T	Credits: 2	Hours: 3
<b>Unit-I</b>					
Objective 1	To provide an in-depth understanding on the various statistical methods				
<b>Measures of Central Tendency:</b> Application of Measures of Central Tendency– Computing Mean, Median, Mode, Geometric Mean, Harmonic Mean and Weighted Averages – Its Usefulness in Research and Decision Making.					
Outcome 1	The students will be able to understand and apply descriptive and inferential statistical techniques			K2	K3
<b>Unit-II</b>					
Objective 2	To provide exposure to the application of statistical methods in research				
<b>Measures of Dispersion:</b> Use of Measures of Dispersion– Computing Range, Mean Deviation, Quartile Deviation, Standard Deviation and Coefficient of Variation – Significance of Dispersion in Decision Making.					
Outcome 2	The students will be able to test hypothesis			K4	
<b>Unit-III</b>					
Objective 3	To provide an understanding of the testing of hypothesis				
<b>Probability:</b> Meaning of Probability – Binomial, Poisson, Chi-square, ‘t’ and ‘F’ tests for Small and Large Samples – Usefulness of these Measures in Research.					
Outcome 3	The students will be able to estimate correlation and regression			K5	
<b>Unit-IV</b>					
Objective 4	To provide training on the estimation of correlation and regression				
<b>Correlation:</b> Correlation Analysis – Types of Correlation – Interpretation of ‘r’ in analysis – Application of Correlation in Empirical Works and in Decision Making.					
Outcome 4	The students will be able to use measures of central tendency and dispersion in research			K3	K4
<b>Unit-V</b>					
Objective 5	To provide adequate knowledge on the probability theories and their usefulness				
<b>Regression Analysis:</b> Methods of Estimation of Regression Coefficient – Simple Linear Regression Model, Multiple Linear Regression Model – Interpretation of Regression Coefficients $R^2$ and $R^2$ – Computing different Growth Rates.					
Outcome 5	The students will be able to draw inferences from the results estimated using statistical techniques.			K5	
<b>Suggested Readings</b>					
<p>Agarwal, Y.P. (2012). <i>Statistical Methods: Concepts, Applications and Computations</i>. Sterling Publishers, New Delhi.</p> <p>Gujarathi, D., Porter, D.C., &amp; Pal, M. (2017). <i>Basic Econometrics</i>. Tata McGraw Hill, New Delhi.</p> <p>Gupta, C.B. (2005). <i>An Introduction to Statistical Methods</i>. Vikas Publishers, New Delhi.</p> <p>Gupta, S.C. &amp; Kapoor, V.K. (2020). <i>Fundamentals of Mathematical Statistics</i>. Himalaya Publishing House, Bombay.</p> <p>Gupta, S.P. (2021). <i>Statistical Methods</i>. S. Chand &amp; Company, New Delhi.</p>					

Murray, R. Spiegel, (2012). *Theory and Problems of Statistics*. McGraw-Hill, Singapore.  
 Wooldridge, M. (2019). *Introductory Econometrics: A Modern Approach*. South-Western College Publishing Private Limited, New Delhi.

**Online resources**

[https://onlinestatbook.com/Online\\_Statistics\\_Education.pdf](https://onlinestatbook.com/Online_Statistics_Education.pdf)  
<https://www.spps.org/cms/lib/MN01910242/Centricity/Domain/859/Statistics%20Textbook.pdf>

K1-Remember, K2-Understand, K3-Apply K4-Analyze, K5-Evaluate, K6- Create

**Course Designed by: Dr.A.Narayanamoorthy**

**Course Outcome VS Programme Outcomes**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)	M(2)	M(2)	S(3)	M(2)	M(2)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	S(3)	M(2)	S(3)
CO4	M(2)	S(3)	M(2)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO5	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	S(3)	M(2)
W.AV	2.4	2.6	2.4	2.4	2.6	2.6	2.6	2.4	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)

**Course Outcome VS Programme Specific Outcomes**

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	M(2)	M(2)	M(2)	M(2)
CO3	M(2)	S(3)	M(2)	S(3)	S(3)
CO4	S(3)	M(2)	S(3)	S(3)	S(3)
CO5	M(2)	S(3)	S(3)	M(2)	M(2)
W.AV	2.4	2.6	2.6	2.6	2.6

S-Strong (3), M-Medium (2), L-Low (1)



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