

**CURRICULUM FRAMEWORK FOR  
POST-GRADUATE PROGRAMME IN ECONOMICS  
AS PER NATIONAL EDUCATION POLICY (NEP) - 2020**

P.G. DIPLOMA in ECONOMICS  
(Programme Code: ECO-1101)  
ONE YEAR/TWO YEAR M.A. in ECONOMICS with RESEARCH  
(Programme Code: ECO-2101)  
ONE YEAR/TWO YEAR M.A. in ECONOMICS with COURSE WORK and RESEARCH  
(Programme Code: ECO-3101)  
ONE YEAR/TWO YEAR M.A. in ECONOMICS with COURSE WORK  
(Programme Code: ECO-4101)

WITH EFFECT FROM THE  
ACADEMIC YEAR: 2024-25



**RAJIV GANDHI UNIVERSITY - A CENTRAL UNIVERSITY  
DEPARTMENT OF ECONOMICS  
RONO HILLS, DOIMUKH  
ARUNACHAL PRADESH-791 112**

## 1.0 The Preamble

The Post Graduate Programme in ECONOMICS at the Department of ECONOMICS, Rajiv Gandhi University (RGU), Rono Hills is designed for students to grow as competent, self-reflective learners with relevant academic and professional skills who can contribute to the growing discipline of ECONOMICS along with the necessary research skill set. The academic significance of Economics study is on the rise and so are its contributions to social welfare. Economics is a social science that basically study how a rational human being behaves while fulfilling his unlimited wants with limited resources; which have alternative uses. Presently there is a widespread application of mathematics and statistics in the field of economics.

**PGP-ECO aims** to train students in both qualitative and quantitative directions where they would learn to explore the learning principles and employ their growing expertise in real-life settings. The PGP-ECO at RGU includes compulsory/major courses, elective courses, and practical. Its curriculum is meticulously crafted to address the demands and challenges of our diverse society. The program has a student-centered approach, focusing on individual students and trying to improve their knowledge, skills, and employability. Additionally, students will also be trained in research methodology and research ethics.

**The PGP- ECO** at RGU, as per National Education Policy-2020 (NEP-2020) currently consists of the 2-year programme, with the second year primarily dedicated to research, for any graduates of 3-year Bachelor's programs. Alternatively, for those completing the 4-year Bachelor's any programme with Honours/Honours with Research would be considered for a 1-year Master's programme.

Sl. No.	Programme Name/ Qualification	Level	Credits	Credit Points
1	PG Diploma	6	40	240
2	1-Year PG after a 4-year UG	6.5	40	260
3	2-Year PG after a 3-year UG	6.5	40+40	260
4	2-Year PG after a 4-year UG such as B.E., B. Tech. etc.	7	40+ 40	280

## 1.1 Graduate Attributes of PG Programmes

Qualifications that signify completion of the postgraduate degree will be awarded to students who:

- i) Would demonstrate knowledge and understanding that is based upon opportunity for originality in developing and/or applying ideas, often within a research context;
- ii) can apply their knowledge understanding, and problem-solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;
- iii) have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments;
- iv) can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;
- v) have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

## 1.2 Curricular Components at Entry Level for a Post Graduate Programme

**1-year PG Diploma in Economics:** Students exiting after 1-year of 2-year of PG with a minimum credit earned equivalent to 40 will be awarded with PG Diploma in Economics.

**1-year Master of Arts in Economics:** Students entering 1-year Master of Arts in Economics after a 4-year UG programme can choose to do (i) only coursework or (ii) only research or (iii) coursework and research.

**2-year Master of Arts in Economics:** Students entering 2-year Master of Arts in Economics after a 3-year UG programme can choose to do (i) only course work in the third and fourth semester or (ii) course work in the third semester and research in the fourth semester or (iii) only research in the third and fourth semester.

The programme is intended to sharpen the students' analytical abilities to optimally solve problems, the curriculum, in general, comprises advanced skills and real-world experience and less of a research component.

## 1.3 Credit Distribution

### a) For 1-year Master of Arts in Economics

Department of Economics shall follow Coursework + Research Model for 1-year Master of Arts in Economics.

Curricular Components	One-Year Masters of Arts in ECONOMICS Programme Minimum Credits			
	Course Level	Coursework	Research Thesis/ Project	Total Credits
Coursework + Research	500	20	20	40

### b) 2 Years Master of Arts in ECONOMICS

Curricular Components	Two-Year Masters of Arts in ECONOMICS Programme Minimum Credits				
	Course Level	Coursework	Research Thesis/ Project	Total Credits	
1 <sup>st</sup> Year (1 <sup>st</sup> & 2 <sup>nd</sup> Semester)	400	20 20	--	40	
Students who exit at the end of 1 <sup>st</sup> year shall be awarded a Postgraduate Diploma in ECONOMICS					
2 <sup>nd</sup> Year (3 <sup>rd</sup> and 4 <sup>th</sup> Semester)	Course Work and Research	500	20	20	40

## 1.4 Exit Point

1. In case of **M.A in Economics (1 Year) programme**, there shall be no exit point. All enrolled students have to complete their post-graduation within 1-year duration/two semesters.
2. In case of **M.A in Economics (2 Year) programme**, there shall only be one exit point for those who join two-year PG programme. However, students who exit at the end of 1st year shall be awarded a Postgraduate Diploma in Economics and they shall have to complete their PG within the duration of 4 years.

## Course Levels

**400-499:** Advanced courses which would include lecture courses with practicum, seminar- based course, term papers, research methodology, advanced laboratory experiments/software training, research projects, hands-on-training, internship/apprenticeship projects at the undergraduate level or First year Postgraduate theoretical and practical courses

**500-599:** For students who have graduated with a 4-year bachelor's degree. It provides an opportunity for original study or investigation in the major or field of specialization, on an individual and more autonomous basis at the postgraduate level

## 1.5 Flexibility

- Flexibility is one of the hallmarks of NEP 2020. The benefit of pursuing M.A in Economics is that it offers great flexibility viz. enrolling in online programmes, pursuing two postgraduate programmes simultaneously, crediting work experience, etc. Also, it is noticeable that postgraduate programmes which are entirely online, allow students to participate in the programme along with their current responsibilities. This makes earning a postgraduate degree while continuing to work easier and more accessible to individuals.
- Another opportunity for students is the facility to pursue two academic programmes simultaneously 1) in two full-time academic programmes in the physical mode provided that there is no overlapping of class timings between the two programmes. 2) A student can pursue two academic programmes, one in full-time physical mode and another in Open and Distance Learning (ODL)/Online mode; or up to two ODL/Online programmes simultaneously. Degree or diploma programmes under ODL/Online mode shall be pursued with only such HEIs which are recognized by UGC/Statutory Council/Govt. of India for running such programmes.
- Creditization of relevant work experience is another initiative to make education more holistic. The UGC-NCrF enables the assignment of credits for the experience attained by a person after undergoing a particular educational programme. In case a learner through employment gains experience relevant to the PG programme he/she wants to pursue; the work experience can be credited after assessment. Accordingly, the duration can be adjusted by the RGU. The maximum weightage provided for under this dimension is two (2) i.e. a candidate/ trained person can at best earn credits equal to the credits acquired for the base qualification/ skill, provided he has more than a certain number of years of work experience. The redemption of credits so earned, however, shall be based on the principle of assessment bands given in the National Curriculum Framework (NCrF).
- The credit points may be redeemed as per Academic Bank of Credit (ABC) guidelines for entry or admission in higher education at multiple levels enabling horizontal and vertical mobility with various lateral entry options
- The principle of calculating credits acquired by a candidate by virtue of relevant experiential learning including relevant experience and professional levels acquired and attaining proficiency levels (post-completion of an academic grade/ skill-based program) gained by the learner/student in the industry is given in the Table 1.5.1 below.

### 1.5.1 Credit Assignment for Relevant Experience / Proficiency

Experience cum Proficiency Levels	Description of the relevant Experiential learning including relevant experience and professional levels acquired and attaining proficiency levels	Weightage/ multiplication Factor	No. of years of experience (Only indicative)
Trained/ Qualification Attained	Someone who has completed the coursework/ education/ training and has been taught the skills and knowledge needed for a particular job or activity.	1	Less than or equal to 1 year
Proficient	Proficient would mean having the level of advancement in a particular profession, skillset, or knowledge.	1.33	More than 1 less than or equal to 4
Expert	Expert means having high level of knowledge and experience in a trade or profession.	1.67	More than 4 less than or equal to 7
Master	Master is someone having exceptional skill or knowledge of a subject/domain.	2	More than 7

### 1.6 Assessment Strategy

The NEP-2020 emphasizes upon formative and continuous assessment rather than summative assessment. Therefore, the scheme of assessment will have components of these two types of assessments. Assessment have to have correlations with the learning outcomes that are to be achieved by a student after completion of the course. Therefore, the mode and system of assessments have to be guided by the learning outcomes.

#### 1.6.1 Course Evaluation/Assessment

The evaluation system in the form of marks distribution for each course in Post Graduate Programme in Economics is depicted in the credit system.

### 1.7 Letter Grades and Grade Points

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative GPA (CGPA) is based on the grades in all courses taken after joining the programme of study. The HEIs may also mention marks obtained in each course and a weighted average of marks based on marks obtained in all the semesters taken together for the benefit of students.

Letter Grade	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Above Average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

### 1.7.1 Computation of SGPA and CGPA

UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of the sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

$$\text{SGPA (Si)} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

-where  $C_i$  is the number of credits of the  $i^{\text{th}}$  course and  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course.

**Example for Computation of SGPA is given below:**

Semester	Course	Credit	Letter Grade	Grade Point	(Credit x Grade)
2	Course 1	3	A	8	3 x 8 = 24
2	Course 2	4	B+	7	4 x 7 = 28
2	Course 3	3	B	6	3 x 6 = 18
2	Course 4	3	O	10	3 x 10 = 30
2	Course 5	3	C	5	3 x 5 = 15
2	Course 6	4	B	6	4 x 6 = 24
		20			139
SGPA					139/20 = 6.95

- ii. The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

-where  $S_i$  is the SGPA of the  $i^{\text{th}}$  semester and  $C_i$  is the total number of credits in that semester.

**Example for Computation of CGPA.**

Semester 1	Semester 2	Semester 3	Semester 4
Credit 20 SGPA 6.9	Credit 20 SGPA 7.8	Credit 20 SGPA 5.6	Credit 20 SGPA 6.0
CGPA = (20 x 6.9 + 20 x 7.8 + 20 x 5.6 + 20 x 6.0) / 80 = 6.6			

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

## 2.0 Nomenclature Used in the Syllabus as per NEP-2020

### **Programme Educational Objective (PEO)**

PEOs are broad statements that describe the career and professional accomplishments that graduates of a programme are expected to achieve within a few years of graduation.

### **Programme Outcome (PO)**

POs are specific statements that describe what students are expected to know and be able to do by the time they complete a programme.

### **Programme Specific Outcome (PSO)**

PSOs are similar to POs but are more specific to a particular specialization or focus area within a programme.

### **Course Outcome (CO)**

COs are statements that describe the specific learning objectives of individual courses within a programme.

## 2.1 PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The Post Graduate programme in ECONOMICS aims to fulfill the following goals and educational objectives:

**PEO 1:** To provide learning scopes by orienting the students towards study of Economics theory and Policies.

**PEO 2:** To develop knowledge of basic concepts and methods of economics, and developing ability to appreciate the challenges in real life.

**PEO 3:** To inculcate a strong sense of ethical and moral aptness in general and in the context of learning and its assessment in particular.

**PEO 4:** To help shaping the abilities of students for building sincere and responsible professionals and researchers.

## 2.2 PROGRAMME OUTCOMES (POs)

**PO1: Basic Foundational Knowledge:** The post graduates will be capable of demonstrating competence in distilling and employing the core ideas of the Social Sciences Languages in multi and interdisciplinary contexts.

**PO2: Critical Thinking and Problem Solving:** The post graduates will develop the ability to employ the tools of critical thinking and methods of enquiry in identifying, formulating, analyzing, and evaluating complex problems and issues for arriving at effective solutions from first principles.

- PO3: Research Orientation and Application:** The post graduates would augment the capability to demonstrate understanding in acquisition of primary sources of knowledge and utilize research tools to investigate, analyses, interpret data and synthesize information to arrive at sound conclusions and enhance the capacity to use practical knowledge of appropriate tools and techniques, including the use of latest technology, to address issues and solve problems.
- PO4: Indigenous Context and Idea of Good Citizenship:** The post graduate students would be capable of taking a critical, informed, and action-oriented approach towards India's diversity encompassing its social, economic, political, historical, environmental, cultural aspects among others by enhance the capacity to apply knowledge and skills to contribute positively to the creation of just, inclusive, tolerant, and environmentally sustainable communities, and demonstrate, by doing, the importance of participating in the governance structures of one's profession and society.
- PO5: Complex Problem Solving:** The post graduates should be able to demonstrate the capability to solve different kinds of problems in familiar and non-familiar contexts and apply the learning to real-life situations.
- PO6: Creativity and Diligence:** The post graduates should be able to demonstrate the ability to create, perform, or think in different and diverse ways about the same objects or scenarios; deal with problems and situations that do not have simple solutions; innovate and perform tasks in a better manner; view a problem or a situation from multiple perspectives; think 'out of the box' and generate solutions to complex problems in unfamiliar contexts; adopt innovative, imaginative, lateral thinking, interpersonal skills and emotional intelligence.
- PO7: Language and Communication Skills:** The post graduates should be able to demonstrate the skills that enable them to listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences; express thoughts and ideas effectively in writing and orally and communicate with others using appropriate media, confidently share views and express herself/himself, construct logical arguments using correct technical language related to a field of learning, work/vocation, or an area of professional practice, and convey ideas, thoughts, and arguments using language that is respectful and sensitive to gender and other minority groups.
- PO8: Analytical Reasoning and Thinking:** The post graduates should be able to demonstrate the capability to evaluate the reliability and relevance of evidence; identify logical flaws in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and address opposing viewpoints.
- PO9: Empathy:** The post graduates should be able to demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or group, and to identify and understand other people's emotions.



**PO10: Leadership Qualities:** The post graduates should be able to demonstrate the capability for mapping out the tasks of a team or an organization and setting direction; formulating an inspiring vision and building a team that can help achieve the vision, motivating and inspiring team members to engage with that vision; using management skills to guide people to the right destination.

### **2.3 PROGRAMME SPECIFIC OUTCOMES (PSOs)**

The learning outcomes that a student should be able to demonstrate on completion of the post graduate degree programme may involve academic and social competencies as described below:

**PSO1:** The learners will have adequate competency in the frontier areas of economic theory and methods.

**PSO2:** They will be able to execute in-depth analysis of economic issues based on their understanding of economic theory.

**PSO3:** Some of the courses will enable them to enhance their entrepreneurial capacity and skills.

**PSO4:** The learners will also acquire additional specialization through optional courses.

### **2.4 Structure of the PG Diploma/One/Two Year Post-graduate Programme in ECONOMICS**

\*1 credit for lecture = 15 hours in a semester

\*\*1 credit for tutorial = 15 hours in a semester

\*\*\*1 credit for practicum = 30 hours in a semester

**Module - I**  
**Course Structure for One Year PG Diploma in ECONOMICS**  
**(Programme Code: ECO-1101) /**  
**One Year MA in ECONOMICS with Research /**  
**Two Years M.A. in ECONOMICS with Research**  
**(Programme Code: ECO-2101)**

NC RF Credit Level	Sem	Course Code and Course Name (Core Course/ Elective)	Course Level	Credit L:T:P	Total Credit	Contact Hours	Maximum Marks			
							Internal	End Semester	Total	
<b>6</b>	<b>I</b>	ECO-101-CC-5110: Microeconomics-III	400	4:0:0	<b>20</b>	60	20	80	100	
		ECO-101-CC-5120: Macroeconomics-II	400	4:0:0		60	20	80	100	
		ECO-101-CC-5130: Public Economics -II	400	4:0:0		60	20	80	100	
		ECO-101-CC-5140: Statistical Method - II	400	4:0:0		60	20	80	100	
		ECO-101-RC-5110: Research Methodology	500	4:0:0		60	20	80	100	
	<b>II</b>	ECO-101-CC-5210: Econometrics - I	500	4:0:0	<b>20</b>	60	20	80	100	
		<b>DE1</b>	ECO-101-DE- 52010: Growth Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52020: Infrastructure Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52030: Indian Economic Thought	500		4:0:0	60	20	80	100
		<b>DE2</b>	ECO-101-DE- 52040: Financial Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52050: Institutional Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52060: Behavioural Economics	500		4:0:0	60	20	80	100
		<b>DE3</b>	ECO-101-DE- 52070: Population Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52080: Gender and Development Economics	500		4:0:0	60	20	80	100
			ECO-101-DE- 52090: Game Theory	500		4:0:0	60	20	80	100
		ECO-101-RC-5210- Research and Publication Ethics /MOOC's Equivalent	500	4:0:0		60	20	80	100	

<b>Total Credit (1 Year)</b>					<b>40</b>		4:0:0		
<b>Exit option with Post-Graduate Diploma in ECONOMICS on completion of courses equal to a minimum of 40 credits</b> <b>or</b> <b>Entry to One Year M.A in ECONOMICS with Research after completion of 4 Years BA with Honours in ECONOMICS</b>									
<b>6.5</b>	III	ECO-101-PR-6110:	500	4:0:0	40	1200	-	-	500
	IV	Research Project							
<b>Total Credit (Aggregate)</b>					<b>80</b>				
<b>M.A. in ECONOMICS with Research on completion of courses equal to a minimum of 80 credits</b>									

**Module - II**  
**Course Structure for PG Diploma in ECONOMICS**  
**(Programme Code: ECO-1101)**  
**One Year MA in ECONOMICS with with Coursework & Research /**  
**/Two Years M.A. in ECONOMICS with Coursework & Research**  
**(Programme Code: ECO-3101)**

NC RF Credit Level	Sem	Course Code and Course Name (Core Course/ Elective)	Course Level	Credit L:T:P	Total Credit	Contact Hours	Maximum Marks			
							Internal	End Semester	Total	
<b>6</b>	<b>I</b>	ECO-101-CC-5110: Microeconomics-III	400	4:0:0	<b>20</b>	60	20	80	100	
		ECO-101-CC-5120: Macroeconomics-II	400	4:0:0		60	20	80	100	
		ECO-101-CC-5130: Public Economics -II	400	4:0:0		60	20	80	100	
		ECO-101-CC-5140: Statistical Method - II	400	4:0:0		60	20	80	100	
		ECO-101-RC-5110: Research Methodology	500	4:0:0		60	20	80	100	
	<b>II</b>	ECO-101-CC-5210: Econometrics - I	500	4:0:0	<b>20</b>	60	20	80	100	
		<b>DE1</b>	ECO-101-DE-52010: Growth Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52020: Infrastructure Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52030: Indian Economic Thought	500		4:0:0	60	20	80	100
		<b>DE2</b>	ECO-101-DE-52040: Financial Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52050: Institutional Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52060: Behavioural Economics	500		4:0:0	60	20	80	100
		<b>DE3</b>	ECO-101-DE-52070: Population Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52080: Gender and Development Economics	500		4:0:0	60	20	80	100
			ECO-101-DE-52090: Game Theory	500		4:0:0	60	20	80	100
	ECO-101-RC-5210-Research and Publication Ethics /MOOC's Equivalent	500	4:0:0	60	20	80	100			
<b>Total Credit (1 Year)</b>					<b>40</b>					

**Exit option with Post-Graduate Diploma in ECONOMICS on completion of courses equal to a minimum of 40 credits**  
**or**  
**Entry to One Year M.A in ECONOMICS with Research after completion of 4 Years BA with Honours in ECONOMICS**

6.5	III	Course work 1	ECO-101-CW-61010: Agricultural Economics	500	4:0:0	20	60	20	80	100	
			ECO-101-CW-61020: Industrial Economics	500	4:0:0		60	20	80	100	
		Course work 2	ECO-101-CW-61030: Econometrics -II	500	4:0:0		60	20	80	100	
			ECO-101-CW-61040: Demography	500	4:0:0		60	20	80	100	
		Course work 3	ECO-101-CW-61050: Advanced Mathematical Economics	500	4:0:0		60	20	80	100	
			ECO-101-CW-61060: Contemporary Issues in Indian Economy	500	4:0:0		60	20	80	100	
		Course work 4	ECO-101-CW-61070: Labour and Informal Economics	500	4:0:0		60	20	80	100	
			ECO-101-CW-61080: Economics and Public Policy	500	4:0:0		60	20	80	100	
		Course work 5	ECO-101-CW-61090: Health Economics	500	4:0:0		60	20	80	100	
			ECO-101-CW-61100: Economics of Social Sector	500	4:0:0		60	20	80	100	
		IV	ECO-101-PR-6210: Research Project	500	0:0:20		20	600	60	240	300
		<b>Total Credit (Aggregate)</b>						<b>80</b>			
	<b>Post-Graduate Degree in ECONOMICS with Coursework &amp; Research on completion of courses equal to a minimum of 80 credits</b>										

**Module III**  
**Course Structure for PG Diploma in ECONOMICS**  
**(Programme Code: ECO-1101) /**  
**One Year MA in ECONOMICS with with Coursework /**  
**Two Years M.A. in ECONOMICS with Coursework (Programme Code: ECO-4101)**

NC RF Credit Level	Sem	Course Code and Course Name (Core Course/ Elective)	Course Level	Credit L: T:P	Total Credit	Contact Hours	Maximum Marks					
							Internal	End Semester	Total			
<b>6</b>	<b>I</b>	ECO-101-CC-5110: Microeconomics-III	400	4:0:0	<b>20</b>	60	20	80	100			
		ECO-101-CC-5120: Macroeconomics-II	400	4:0:0		60	20	80	100			
		ECO-101-CC-5130: Public Economics -II	400	4:0:0		60	20	80	100			
		ECO-101-CC-5140: Statistical Method - II	400	4:0:0		60	20	80	100			
		ECO-101-RC-5110: Research Methodology	500	4:0:0		60	20	80	100			
	<b>II</b>	ECO-101-CC-5210: Econometrics - I	500	4:0:0	<b>20</b>	60	20	80	100			
		<b>DE1</b>	ECO-101-DE- 52010: Growth Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE- 52020: Infrastructure Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE- 52030: Indian Economic Thought	500		4:0:0	60	20	80	100		
		<b>DE2</b>	ECO-101-DE-52040: Financial Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE-52050: Institutional Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE-52060: Behavioural Economics	500		4:0:0	60	20	80	100		
		<b>DE3</b>	ECO-101-DE-52070: Population Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE-52080: Gender and Development Economics	500		4:0:0	60	20	80	100		
			ECO-101-DE-52090: Game Theory	500		4:0:0	60	20	80	100		
		ECO-101-RC-5210-Research and Publication Ethics /MOOC's Equivalent	500	4:0:0		60	20	80	100			
		<b>Total Credit (1 Year)</b>					<b>40</b>					
		<b>Exit option with Post-Graduate Diploma in ECONOMICS on completion of courses equal to a minimum of 40 credits</b> <b>or</b> <b>Entry to One Year M.A in ECONOMICS with Research after completion of 4 Years BA with Honours in ECONOMICS</b>										

6.5	III	Course work 1	ECO-101-CW-62010: Agricultural Economics	500	4:0:0	20	60	20	80	100		
			ECO-101-CW-61020: Industrial Economics	500	4:0:0		60	20	80	100		
		Course work 2	ECO-101-CW-61030: Econometrics -II	500	4:0:0		60	20	80	100		
			ECO-101-CW-61040: Demography	500	4:0:0		60	20	80	100		
		Course work 3	ECO-101-CW-61050: Advanced Mathematical Economics	500	4:0:0		60	20	80	100		
			ECO-101-CW-61060: Contemporary Issues in Indian Economy	500	4:0:0		60	20	80	100		
		Course work 4	ECO-101-CW-61070: Labour and Informal Economics	500	4:0:0		60	20	80	100		
			ECO-101-CW-61080: Economics and Public Policy	500	4:0:0		60	20	80	100		
		Course work 5	ECO-101-CW-61090: Health Economics	500	4:0:0		60	20	80	100		
			ECO-101-CW-61100: Economics of Social Sector	500	4:0:0		60	20	80	100		
		IV	Course work 1	ECO-101-CW-62010: The Economy of North East India	500		4:0:0	20	60	20	80	100
				ECO-101-CW-62020: Entrepreneurship Development	500		4:0:0		60	20	80	100
	Course work 2		ECO-101-CW-62030: Indian Financial Institutions and Markets	500	4:0:0	60	20		80	100		
			ECO-101-CW-62040: Regional Economics	500	4:0:0	60	20		80	100		
	Course work 3		ECO-101-CW-62050: Issues in Indian Agriculture	500	4:0:0	60	20		80	100		
			ECO-101-CW-62060: Economic Growth, Population and Structural Change	500	4:0:0	60	20		80	100		
	Course		ECO-101-CW-	500	4:0:0	60	20		80	100		

		<b>work 4</b>	62070: International Trade and Development							
			ECO-101-CW-62080: Law and Economics	500	4:0:0		60	20	80	100
		<b>Course work 5</b>	ECO-101-CW-62090: Advanced Econometric Methods and Application	500	4:0:0		60	20	80	100
			ECO-101-CW-62100: Gender and Regional Development	500	4:0:0		60	20	80	100
<b>Total Credit (Aggregate)</b>						<b>80</b>				
<b>Post-Graduate Degree in ECONOMICS with Coursework on completion of courses equal to a minimum of 80 credits</b>										



# **SEMESTER - I**

## ECO-101-CC-5110: Microeconomics-III

**Minimum Contact hours: 60 hours**  
**Total Credit: 4 (4L)**  
**Internal Assessment: 20 marks**  
**End Semester Exam: 80 marks**

**Learning Objective:** The present syllabus has been modified to cater the Micro Economic Theory to an advanced level.

### Course Outcome:

**CO 1:** The learner will learn about advance theory of utility maximization.

**CO 2:** They will understand the certainty and asymmetric information situation in decision making

**CO 3:** They will learn about the advance theory of firms.

**CO 4:** they will have further advance knowledge of welfare economics and general equilibrium.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Consumer's Choice</b> Utility and its relation to the value of goods, Utility maximisation, Indirect utility maximisation, Duality of utility and expenditure, Marshallian demand function – Indirect utility function and cost function – Hicksian demand function – Properties of demand function: Engel aggregation, Cournot aggregation, homogeneity -Linear expenditure system.	15	CO1
<b>Module II</b>	<b>Uncertainty, Risk and Imperfect Information</b> Decision making under different conditions: Decision making under Risk, Expected Monetary value criterion, expected profit and value with perfect information, Expected Loss criterion; Decision making under uncertainty, probabilities and Expected values, Attitudes towards risk and expected utility theory; Asymmetric Information: The market for lemons, Adverse Selection, the problem of moral hazards.	15	CO2
<b>Module III</b>	<b>Theory of Firms</b> The traditional theory of firm and its evaluation – Baumol's sales revenue maximization model: Static and dynamic model – Bian's Limit pricing theory, Marris's Model of Managerial Enterprise, Williamson's model of Managerial Discretion	15	CO3

<b>Module IV</b>	<b>Welfare Economics and General Equilibrium</b>	<b>15</b>	<b>CO4</b>
	Pareto Optimality: Its conditions - Consumption, production and exchange, critical evaluation of Pareto Optimality – Compensation tests: Kaldor, Hicks and Scitovsky– Bergson’s Social welfare function. Brouwar’s fixed point theorem - Principles of general equilibrium, existence, uniqueness and stability (Walrasian and Marshallian conditions of stability) – Walrasian general equilibrium system – Non-Walrasian equilibrium.		

<b>Mapping of POs/ PSOs with COs</b>														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	2	-	-	2	2	2	2	2	1	3	3	1	2
<b>CO2</b>	3	2	1	1	2	1	2	1	2	1	3	2	1	1
<b>CO3</b>	2	2	1	1	2	1	1	1	1	1	3	3	1	1
<b>CO4</b>	1	2	1	2	2	1	2	1	2	1	3	3	-	2
<b>Average</b>	2.25	2.0	0.75	1.0	2.0	1.25	1.50	1.25	1.75	1.0	3.0	2.67	0.75	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as 3: High; 2: Medium; 1: Low; : No Correlation

### **Recommended Readings:**

- Koutsoyiannis, A., *Modern Microeconomics*, Macmillan Press, London, 1979.
- Varian, H., *Microeconomic Analysis*, W.W. Norton, New York, 2000.
- Baumol, W. J., *Economic Theory and Operations Analysis*, Prentice Halls of India, New Delhi, 1982.
- Henderson, J.M. and R.E. Quant, *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi, 1980.
- Kreps, M.D., *A Course in Microeconomic Theory*, Prentice Hall of India, New Delhi, 1992.
- Ray, N.C., *An Introduction to Microeconomic Theory*.
- Mishan, E.J., *Welfare Economics: An Assessment*, North Holland, Amsterdam, 1969.
- Sen, Anindya, *Microeconomics, Theory and Applications*, Oxford University Press, 1999.
- Pindyck, R. S. Rubinfeld, D.L. & Mehta, P.L. *Microeconomics*, Pearson Education

## ECO-101-CC-5120: Macroeconomics -II

<b>Minimum Contact hours: 60 hours</b> <b>Total Credit: 4 (4L)</b> <b>Internal Assessment: 20 marks</b> <b>End Semester Exam: 80 marks</b>
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**Learning Objective:** The learners will acquire knowledge of advance theories of Macroeconomics especially on neo-classical and Keynesian synthesis in addition to the theories of consumption, investment and trade cycle.

### Course Outcome:

- CO1.** The learners will understand the basics difference between the classical and Keynesian theories of income and employment.
- CO2.** The learners will acquire knowledge on the Keynesian synthesis under open economic framework.
- CO3.** The learner will be able to understand the alternate theories of consumption function.
- CO4.** The students gain knowledge on the advance theories of investment and trade cycles.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Classical and Keynesian Economics</b> Classical theory of income, employment, wage rate, interest and price level, Classical dichotomy and its critic, Say's Law, Causes of unemployment: Evaluation of classical model. Keynesian critique of classical model, Keynesian Theory of income, consumption, interest, multiplier and employment.	15	CO1
<b>Module II</b>	<b>Neo-Classical and Keynesian Synthesis</b> IS-LM model, Relative effectiveness of monetary and fiscal policies, Extension of IS-LM model to an open economy: Mundell-Fleming model; Jan Timbergen's target instruments rule.	15	CO2
<b>Module III</b>	<b>Theories of Consumption</b> Extension of Keynesian consumption function to long run, Relative and past income Hypothesis; Life Cycle Hypothesis; Permanent Income Hypothesis.	15	CO3

<b>Module IV</b>	<b>Theories of Investment and Trade Cycle</b>	15	CO4
	Investment demand: Payback period, Present Value criterion for investment, Internal Rate of Return, Marginal Efficiency of Capital and Investment. Theories of trade cycle: Keynesian theory, Samuelson's Multiplier-accelerator interaction and Schumpeterian theory.		

<b>Mapping of POs/ PSOs with COs</b>														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	2	2	1	2	2	1	2	2	-	3	2	-	3
<b>CO2</b>	3	2	2	2	1	1	1	2	1	1	3	2	-	2
<b>CO3</b>	3	1	2	2	2	2	-	2	2	2	3	2	-	2
<b>CO4</b>	3	1	2	2	1	1	-	2	1	1	3	3	-	2
<b>Average</b>	3.0	1.5	2.0	1.75	1.5	1.5	0.5	2.0	1.5	1.0	3.0	2.25	-	2.25

The Mapping Level Contribution between COs-POs/PSOs are Categorized as 3: High; 2: Medium; 1: Low; : No Correlation

### **Recommended Readings:**

- Shapiro, Edward, *Macroeconomic Analysis*, Galgatia Publication, New Delhi, 1996.  
 Branson, W. H., *Macroeconomic Theory and Policy*, Universal Book Stall, New Delhi, 1979.  
 Kaldor, N., *Essays on Economic Stability and Growth*, Duckworth, London.  
 Jha, R., *Contemporary Macroeconomic Theory and Policy*, New Age International (P) Ltd., New Delhi, 1999.  
 Mueller, M.G. (ed.), *Readings in Macroeconomics*, Surjeet Publications, Delhi, 1978.  
 Gampinski, J. H., *Macroeconomic Theory*, McGraw Hill, New York, 1982.  
 Keynes, J. M., *General Theory of Employment, Interest and Money*, Macmillan, London, 1936.  
 Frayen R.T., *Macroeconomics: Theories and Policies*, 8<sup>th</sup> Edition, Pearson Education, 2009  
 Blanchard, O., *Macroeconomics*, fourth edition, Pearson Education, 2008  
 Mankiw, N. G, *Macroeconomics*, fourth edition, Worth Publishers, 1992  
 Gordon, R.J. *Macroeconomics*, twelfth edition, PHI/Eastern Economy edition  
 Parkin, M. *Macroeconomics*, tenth edition, Addison-Wesley Publishing Company, New York, 1989

## ECO-101-CC-5130: Public Economics-II

**Minimum Contact hours: 60 hours**

**Total Credit: 4 (4L)**

**Internal Assessment: 20 marks**

**End Semester Exam: 80 marks**

**Learning Objective:** This course has been designed to impart knowledge to the learners about the concept of public goods and theories of public expenditure, taxation, public budget as well as the role of fiscal policy and fiscal federalism

### **Course Outcome:**

C.O.1: The learners will gain knowledge about rationale behind government intervention,

C.O.2 The learners will also learn about the theories and importance of public expenditure and its effects.

C.O.3. The learners will know about the sources of public revenue and gain skills to analyse the different components of public budget.

C.O.4: The learners will also understand about the fiscal policy and its role in maintaining economic stability.

C.O.5: the learners will gain fair knowledge about centre-state fiscal relation in a federal country

Module	Content	Contact Hours	CO
Module 1	Rationale for Government Intervention Role of government in economic activity: Allocation, distribution and stabilization functions, Musgrave' optimum budget model – demand and supply of Public goods, Externalities, market failure, causes of market failure in public goods, rationale for government intervention in provision of public and merit goods.	15	CO1
Module 2	Theories of Public Expenditure Reasons for growth of public expenditure, Wagner's law of increasing state activities –Wiseman-Peacock hypothesis, Lindhal's model – Samuelson's model –Paradox of voting in public expenditure.	15	CO2 CO3
Module 3	Theories of Taxation and Public Debt Ability to pay and benefit approaches of taxation; neutrality in taxation, Taxable capacity-absolute and relative and its determinants, shifting and incidence of tax under different market conditions.	15	CO3

	Public debt, burden of debt-money burden and real burden, Domar's approach to burden of public debt, management of public debt.		
Module 4	Fiscal Policy and Fiscal Federalism Fiscal policy and its instruments, compensatory fiscal policy, balanced budget multiplier, Effectiveness of fiscal policy, Deficit financing: advantages and disadvantages. Fiscal federalism-Principles of division of financial resources in a federation – Horizontal and vertical imbalances – Role of Finance Commission, criteria of funds transfer from Centre to the States in India – Fiscal reforms in India.	15	CO4 CO5

Mapping of POs/ PSOs with Cos														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	1	1	2	2	1	1	1	-	3	2	-	1
CO2	3	2	1	2	2	2	1	1	1	-	3	3	-	2
CO3	3	2	-	2	2	2	-	2	1	-	3	3	1	2
CO4	3	2	1	2	2	1	1	2	1	-	3	3	1	1
CO5	3	2	1	3	2	2	-	1	1	-	3	3	-	2
Average	3.0	2.0	0.80	2.0	2.0	1.8	0.6	1.4	1.0	-	3.0	2.80	0.40	1.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Musgrave, R.A., The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo, 1959.

Musgrave, R.A and P.B. Musgrave, Public Finance in Theory and Practice, McGraw- Hill Book Company.

Buchanan, J.M., The Public Finances, Richard D Irwin, Homewood, 1970.

Dalton, H., Principles of Public Finance, Allied Publishers, New Delhi.

Atkinson, A.B. and J.E. Stiglitz, Lectures on Public Economics, Tata McGraw Hill, New York.

Choudhry, R.K., Public Finance and Fiscal Policy, Kalyani Publishers, New Delhi.

Jha, R., Modern Public Economics, Routledge, London.

Mishra, B., Economics of Public Finance, Macmillan India Limited, New Delhi.

Gupta, J.R., Public Economics in India, Atlantic Publications, 2007.

**ECO-101-CC-5140: Statistical Methods-II**

<b>Total Credit: 4 (4L)</b> <b>Minimum Contact Hours: 60</b> <b>Internal Assessment: 20</b> <b>End Semester Exam: 80</b> <b>Full Marks: 100</b>
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**Learning Objective:** This course has been designed to impart knowledge statistical tools and techniques which will be useful in econometric study.

**Course Outcomes:**

CO1: The learners will understand about the probability and mathematical expectation.

CO2: The learners will be able to learn about moment and some important probability distributions.

CO3: The learners will also learn about the correlation and regression analysis.

CO4: The learners will understand about the statistical inference.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Probability and Mathematical Expectation</b> The concept of a sample space & elementary events; a-priori & empirical definition of probability; addition & multiplication theorems; compound and conditional probability –Bayes theorem; random variable, probability function and probability density function; mathematical expectation, variance, covariance, variance of a linear combination of variables	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>Moment and Probability Distribution</b> Moments & moment generating functions; Skewness and Kurtosis; poisson distribution; binomial distribution; normal distribution	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Correlation and Regression</b> Correlation-meaning and types; Karl Pearson’s coefficient of correlation and its properties; Spearman’s rank correlation; regression-estimation of regression in case of single explanatory variable using method of least squares; properties of regression coefficients; angle between two regression lines; standard error of estimate	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Statistical Inference</b> Properties of an ideal estimator – small sample and large sample; concept of sampling distribution; testing of hypothesis- type I and type II errors, one tailed and two tailed tests; tests based on Z, t and F distributions; $\chi^2$ (Chi-Square) test	<b>15</b>	<b>CO4</b>



### Mapping of POs/ PSOs with COs

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	-	1	1	2	1	2	3	-	3	1	3	3
CO2	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO3	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO4	3	2	-	1	2	2	1	2	3	-	3	1	3	3
Average	3.0	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	3	3

### Recommended Readings:

Giri, Prasanta Kumar and Jiban Banerjee, *Introduction to Statistics including statistics practical*, Academic Publishers, 2009

Gupta, S. C., *Fundamentals of Applied Statistics*, S. Chand and Sons, New Delhi, 1993.

Goon, A M., M.K. Gupta and B.S. Dasgupta, *Basic Statistics*, The World Press Limited, Calcutta, 1996.

Goon, A M., M.K. Gupta and B.S. Dasgupta, *Fundamentals of Statistics*, Vol. I and Vol. II, The World Press Limited, Calcutta, 1996.

Gupta, S.P., *Statistics*, S. Chand, New Delhi, 1997.

Gupta, S.C. and V.K. Kapoor, *Fundamentals of Applied Statistics*, S. Chand and Sons, New Delhi, 1993.

Hogg, R.V. and A.T.Craig, *Introduction to Mathematical Statistics*, Macmillan Publishing Co., New York, 1970.

Kapoor, J.N. and H.C. Saxena, *Mathematical Statistics*, S.Chand & Company, New Delhi, 1992.

Millar, J., *Statistics for Advanced Level*, Cambridge University Press, Cambridge, 1996.

Nagar, A.L. and R. K. Das, *Basic Statistics*, Oxford University Press, New Delhi, 1993.

## ECO-101-RC-5110: RESEARCH METHODOLOGY

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**hours**  
**Internal Assessment: 20 marks**  
**End Semester Exam: 80 marks**  
**Full Marks: 100**

**Learning objective:** The Research methods paper and the various techniques in the paper are required to understand specific economic situation of empirical world. Hence, this course is design for the students such that they can take up the work of Dissertation writing smoothly in their graduation level with empirical data and information.

### Course Outcome:

CO 1: The learners can able to understand the meaning, types and objectives of doing Research in Economics.

CO 2: The learners can able to understand the meaning and types sampling design. The learners also able to identify the different sources of data for their research.

CO 3: The learners can able to do some simple analysis after collection of data and also interpret the results also.

CO 4: Learners can able to set the hypothesis for their research and also the testing of Hypothesis can be using suitable statistical techniques.

Module	Content	Contact Hours	CO
Module 1	<b>Meaning of Social Science Research</b> Meaning of Research – Social Science research and its Objectives – Types of Research in Social Sciences: Participant Observations, Action research, Community based research; quantitative and qualitative research, Research Design, research in Economics and its problems, Identification of the economic problem to be researched – literature review.	10	CO1
Module II	<b>Sample Design and Data Source:</b> Sample Design – Meaning and Types, Implication of Sample Design, Steps and Characteristics of Good Sample Design, Criteria of selecting a sampling procedure; sampling problems: heterogeneity of the universe, Stratification of the universe, Data Source – Secondary and primary– preparation of questionnaire.	15	CO2
Module III	<b>Hypothesis Testing</b> Meaning of Hypothesis, Basic Concept concerning the testing of hypothesis, Procedure of Hypothesis Testing, Types of Errors in Hypothesis Testing; two tailed and one-tailed; Z test, t test, chi square test and F test.	20	CO3

Module IV	<b>Processing and Analysis of Data using Statistical software</b> Analysis of Data using Excel and SPSS; Creation of Graphs, Tables, Bar Diagram, Mean, Median and Mode, Standard Deviation, Measures of Dispersion, Simple Regression analysis	15	CO4
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	2	3	2	2	2	2	-	1	1	-	1
CO2	2	1	1	1	1	2	-	2	2	-	-	-	-	1
CO3	2	2	1	-	2	2	-	2	2	-	-	-	-	1
CO4	3	3	-	-	2	2	-	2	3	-	2	-	-	1
Average	2.5	2	0.75	0.75	2	2	0.5	2	2.25	-	0.75	0.25	-	1

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Freund, J. E. (2003). *Mathematical Statistics with Applications* (7th ed.). Irwin Miller & Marylees Miller. Prentice Hall.

Gupta, S. C. (2012). *Fundamentals of Statistics*. Himalaya Publishing House.

Hogg, R. G., & Craig, A. T. *Introduction to Mathematical Statistics*. Pearson Education (Indian Edition).

Kenny, J. F., & Keeping, E. S. *Mathematical Statistics, Part I & Part II*.

Kothari, R. C. (2008). *Research Methodology, Methods and Techniques* (2nd rev. ed.). New Age International Publishers.

Krishnaswamy, O. R. (1993). *Methodology of Research In Social Sciences*. Himalaya Publishing House.

Rohatgi, V. K., & Saleh, A. K. M. E. (2000). *An Introduction to Probability and Statistics* (2nd ed.). Wiley.

Wilkinson, T. S., & Bhandarkar, P. L. *Methodology and Techniques of Social Research*. Himalaya Publishing House.

# **SEMESTER II**

**ECO-101-CC-5210: Econometrics-I**

<b>Total Credit: 4 (4L)</b> <b>Minimum Contact Hours: 60</b> <b>Internal Assessment: 20</b> <b>End Semester Exam: 80</b> <b>Full Marks: 100</b>
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**Learning Objective:** This course has been designed to impart the knowledge of basic econometric models, its estimation and related problems.

**Course Outcomes:**

- CO1: The student will learn about the classical linear regression model.
- CO2: They will learn the general linear regression model.
- CO3: They will understand the problem of auto-correlation and heteroscedasticity and its implication.
- CO4: the student will also learn about the problem of multicollinearity and errors in variables.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Classical Linear Regression Model</b> Two-variable linear regression model- assumptions and estimation; Gauss Markov theorem; Testing of hypothesis; Confidence interval, Coefficient of determination, F-test; Extension of two variable model, logarithmic and reciprocal transformation.	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>General Linear Regression Model</b> Assumptions and estimation, Properties of estimator; Coefficient of determination	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Autocorrelation and Heteroscedasticity</b> Autocorrelation: Meaning and types (positive and negative) – Effects of autocorrelation on the properties of OLS estimators – Detection of autocorrelation: Durbin-Watson test and von-Neumann ratio. Heteroscedasticity: Meaning and effects on the properties of the OLS estimators – Detection: Glacer method.	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Multicollinearity and Errors in Variables</b> Multicollinearity: Meaning, its effects on the estimation of parameters and their variances. Errors in variables: Meaning of errors in variables, Effects of errors in variables when errors occur in (a) dependent variable, (b) independent variable, and(c) both dependent and independent variables.	<b>15</b>	<b>CO4</b>

### Mapping of POs/ PSOs with COs

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	-	1	1	2	1	2	3	-	3	1	3	3
CO2	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO3	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO4	3	2	-	1	2	2	1	2	3	-	3	1	3	3
Average	3.0	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	3	3

#### Recommended Readings:

Gujarati, D.N. *Basic Econometrics*, McGraw Hill, New Delhi, 1995.

Koutsoyiannis, A., *Theory of Econometrics*, The MacMillan Press Ltd., London, 1977.

Johnston, J, *Econometric Methods*, McGraw Hill, Book Co., London, 1991

J. F. Wooldridge (2008): *Introductory Econometrics: A Modern Approach*, Third edition: South-Western Cengage Learning India

Maddala, G.S., *Econometrics*, McGraw Hill, New York, 1999.

Salvatore, Dominick and Derrick Reagle, *Statistics and Econometrics*, Schaum's Outline Series, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2005.

## ECO-101-DE-52010: Growth Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Course Objective: The course is designed to impart knowledge about the advance and emerging areas in growth literature.**

**Course Outcomes:** At the end of the course, students should be able to:

**CO1.** The learners will have the basic idea of the Keleckian and Keynesian frame and the basic neoclassical growth models.

**CO2.** The learners will be able to understand the neoclassical critiques and the emergence of the Cambridge growth accounting.

**CO3.** The learners will also have the idea and working knowledge about the most recent development in the endogenous growth models.

**CO4.** The learners will understand the influence and consequences of technology transfer and growth convergence.

Module	Content	Contact Hours	CO
Module I	Kaleckian-Keynesian Frame and The Basic Neoclassical growth Kalecki growth model, Keynesian frame and its offshoot: Secular stagnation, Domar model, Harrod model, Basic neoclassical growth: Solow model- Steady state of equation, Golden rule of accumulation; Solow residue, convergence theory.	15	CO1
Module II	Neoclassical Critique and Cambridge Models Neoclassical two sector model and stability of balanced growth, Feldman growth model, AK model, the Cambridge critics, Cambridge growth models: Kaldor and Robinson	15	CO2
Module III	Endogenous Growth Physical and human Capital; basics of Ramsey model; Lucas and Romer's models; Schumpeter quality ladder	15	CO3
Module IV	Technology Transfer and Convergence Model of club convergence, convergence and divergence, Credit constraints – theory and evidence	15	CO4

Mapping of POs/ PSOs with COs														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	-	2	2	1	1	2	2	1	3	2	1	3
CO2	3	2	-	2	2	2	2	3	3	2	3	3	-	3
CO3	3	2	-	2	1	2	1	3	2	-	3	3	2	2
CO4	3	3	-	2	2	1	1	3	2	1	3	2	1	2
Average	3.0	2.5	-	2.0	1.75	1.5	1.25	2.75	2.25	1.0	3.0	2.5	1.0	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Higgins, B., Economic Development, W.W. Norton, New York.

Meier, G., Leading Issues in Economic Development, Oxford University Press, New Delhi (Second edition).

Thirlwall, A.P., Growth and Development, Macmillan, London.

Ray, D., Development Economics, Oxford University Press, New Delhi.

Todaro, M.P., Economic Development, Longman, London.

Mishra, S.K. and V.K. Puri, Economic Development and Planning, Himalayan Publishing House, Mumbai.

Sarkel, J., Growth Economics, Book Syndicate Private Limited, Kolkata.

Ghatak, S., Development Economics, Macmillan, New York.

Cypher, J. M., & Dietz, J. L. (2008). The process of economic development, Routledge, London

Aghion, Phillippe and Peter Howitt, The Economics of Growth, The MIT Press, Cambridge Massachusetts, London England



## ECO-101-DE-52020: Infrastructure Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course OBJECTIVES:

Infrastructural facilities act as the springboard for enhancing the functional capacities of the economy. This paper contains the topics which treat the different infrastructural facilities as a kind of supportive lattice of the economy. Costing methods of infrastructural services and facilities are also included.

### Course Outcome:

CO 1. This paper dealing with a large number of practical issues faced in everyday life has proved to be very instructive to the learners.

CO2. Having studied this paper, students will be able to learn about the importance of different infrastructure such as transport and communication, and energy.

CO 3. Students will learn about the importance of social infrastructure, health and education.

Module	Content	Contact Hours	CO
Module I:	Introduction Infrastructure and economic development – Infrastructure as a public good – Social and physical infrastructure – Special characteristics of public utilities – Economies of scale of joint supply – Marginal cost pricing vs. other methods of pricing of public utilities – Cross subsidization: Free prices, equity and efficiency.	15	CO1
Module II	Transport Economics and Communication The structure of transport costs and location of economic activities – Demand for transport – Model of freight and passenger demand – Cost functions in the transport sector – Principle of pricing – Special problem of individual models of transport. Rate making in telephone utilities – Principles of decreasing costs in telephone industry- Characteristics of postal services – Criteria for fixation of postal rates – Measurement of standards of service in telephone and postal utilities.	15	CO2
	Energy Economics	15	CO2

Module III	Primacy of energy in the process of economic development – Factors determining demand for energy – Energy conservation – Renewable and non-conventional sources of energy – Energy modeling.		
Module IV	Social Infrastructure, Health and Education Organization and financing of supply of social services – Private vs. public sector financing – Debate about fixation of prices of social services. Education and economic growth – Approaches to educational planning: Rate of return and manpower balance approaches – The issues in education policy. Health dimensions of development – Determinants of health: Poverty, malnutrition, illiteracy and lack of information – Economic dimension of health care: Demand and supply of health care – Financing of health care and resource constraint.	15	CO3

Mapping of POs/ PSOs with COs														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 3	PSO 3	PSO 4
CO1	3	2	2	2	2	1	1	2	3	1	3	3	1	3
CO2	3	3	3	3	2	2	1	2	3	1	3	3	1	3
CO3	3	3	3	3	2	2	2	3	3	2	3	3	2	2
Average	3.0	2.67	2.67	2.67	2.0	1.67	1.33	2.33	3.0	1.33	3.0	3.0	1.33	2.67

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Indian Council of Social Sciences Research (ICSSR), Economics of Infrastructure, Vol.VI, New Delhi, 1976.

National Council of Applied Economic Research (NCAER), India Infrastructure Report: Policy Implications for Growth and Welfare, NCAER, New Delhi, 1996.

Norton, H. S., Modern Transport Economics, C E Merrill, London, 1971.

Garfield, P. J. and W. Lovjoy, Public Utility Economics, Prentice Hall, Englewood Cliffs, 1964.

Centre for Monitoring Indian Economy, India: Energy Sector, CMIE, Mumbai, 1996.

Vaizey, J., Economics of Education, Faber and Faber, London, 1962.

Baru, R V, Private Healthcare in India: Social Characteristics and Trends, Sage Publications, New Delhi, 1998.

## ECO-101-DE-52030: Indian Economic Thoughts

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Course Objective:** This course has been designed to impart knowledge of the economic ideas and economic thoughts of Indian economic thinkers.

### Course Outcome:

CO1. The learners will learn about the economic ideas and thoughts of the ancient economic thinkers.

CO2. The learners will also know about the Indian economic thoughts during the colonial period and learn about drain of wealth and causes of famine and poverty.

CO3. They will acquire knowledge about Gandhian economics and importance of khadi and village industries.

CO4 The learners will have learned about the economic thoughts in modern India relating to fiscal policy, economic planning, population policy, national income and income tax in India.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Economic Thoughts in Ancient India</b> Kautilya's Arthashastra: Varta (National Economy), Importance of agriculture, animal husbandry and trade; Ideas on population growth and slavery; Economic functions of State; Public Finance; Town planning and social security	15	CO1
<b>Module II</b>	<b>Economic Thoughts during Pre-independence period</b> Dadabhai Naroji: Taxation, military expenditure and public debt; drain theory; Economic Ideas of Ranade; Wacha's idea on causes of famine and currency policy; Ramesh Chandra Dutta's idea on causes of poverty and remedies; Gopal Krishna Gokhale's idea on public expenditure and financial reforms	15	CO2
<b>Module III.</b>	<b>Gandhian Economics</b> Gandhiji' economic ideas: welfare economy, non-violent economy, decentralization, use of machinery and its impacts, regeneration of village, khadi industry, Doctrine of trusteeship,	15	CO3

	Gandhi and Marx, principle of Sarvodaya (welfare of all), population and food problem		
<b>Module IV</b>	<b>Economic Thoughts in Modern India</b> Radhakamal Mukherjee: Institutional theory of economics, planning in India; Ecological theory of population; C. N. Vakil: Fiscal policy and financial development in India; Gadgil: Industrial evolution, war and economic policy and planned economic development; V.K.R.V Rao: national income of India, income tax in India, war-time and post-war economic policies, deficit financing and economic development, dealing with post-devaluation problems.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	1	2	3	1	1	-	-	1	-	-	1	-	-
CO2	2	2	2	2	1	1	-	-	1	-	2	1	-	-
CO3	2	2	2	2	1	1	-	-	2	1	2	1	2	-
CO4	2	3	3	2	2	1	1	-	2	-	2	1	2	-
Average	2.0	2.0	2.25	2.25	1.25	1.0	0.25	-	1.50	0.25	1.75	1.0	1.0	-

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Dasgupta, Ajit K., A History of Indian Economic Thoughts, Routledge, 1993.

Sen, Amartya, The Argumentative Indian: Writings on History, Culture and Identity, 2006.

Conlin, Jonathan, Great Economic Thinkers: From Adam Smith to Amartya Sen, Speaking Tiger Publishing Ltd., 2018.

Lokanathan, V., History of Economic Thought, S. Chand & Company Limited, 2010.

Hajela, T.N., History of Economic Thought, Ane Books.

Paul, R.R., History of Economic Thought, Kalyani Publisher, 2014.

## ECO-101-DE-52040: Financial Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** In view of growing importance of financial market and financial institutions in the process of development, financial economics is included as a full paper.

### Course Outcome:

CO 1. Having studied this course student will be able to learn about different types of business entity.

CO 2. Students will understand different pattern of financing a business; and the cost and return from such type of financing.

CO 3. Students will know about the risk and return of different types of investment; and about the methods of diversifying risks.

C.O 4. Students will learn about the optimal portfolio selection, portfolio revision and portfolio evaluation

Module	Content	Contact Hours	CO
Module 1	Capital and Finance Corporate entity, sole proprietorship, partnership, joint stock company, limited liability, separation of ownership from control, conflicts of interests between shareholders and managers. Sources of finance: equity and loan, different types of shares: ordinary shares and preferential share; debentures and loans.	10	CO1
Module II	Cost of Capital Business Risk and Financial Risk, Cost of loan and equity: traditional view on loan finance, advantages and disadvantages of loan finance, Modigliani and Miller view of gearing (leverage), critical appraisal of Modigliani and Miller view.	15	CO2
Module III	Risk and Return Measurement of Risk, Portfolio risk, probability distribution of returns, systematic and unsystematic risk; diversification: risk and return in a portfolio. Utility theory, attitudes towards risk and expected value of return. Arrow- Pratt's measures of Absolute and Relative Risk Aversions.	20	CO3

Module IV	Portfolio Theory and Pricing of Capital Assets Selection of optimal portfolio, efficient frontier, lending and borrowing; Sharpe's capital asset prices model; Capital asset pricing model (CAPM): assumptions, derivation and empirical tests. Arbitrage asset pricing model; Portfolio revision and Portfolio evaluation.	15	CO4
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	-	1	2	2	2	3	3	2
CO3	3	2	-	1	2	2	2	2	2	2	3	3	3	3
CO4	3	2	1	1	2	2	2	3	2	2	2	3	3	3
Average	2.75	2	1	1	2	1.75	1.25	2	1.75	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Copeland T E, J F Weston and K Shastri (2205) Financial Theory and Corporate Policy, Fourth Edition, Pearson Addition –Wesley, USA.

Cuthbertson, K (1996) Quantity Financial Economics : Stocks, Bonds and Foreign Exchange, John Wiley and Sons, USA

Eichberger J and I R Harper (1997) Financial Economics, Oxford University Press, New York.

Tuckman, B (1995) Fixed Income Securities – Tools for Today's Markets, Wiley Frontiers in Finance.

ZviBodie, Alex Kane and Alan J, Marcus, investments, 8<sup>th</sup> edition, ISBN : 0-07 338237 – X McGraw-Hill.

Chandler, L. V. and S. M. Goldfeld, The Economics of Money and Banking, Harper & Row, New York, 1977.

Bhole, L. M., Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi, 1999.

Branson, W H, Macroeconomic Theory and Policy, Universal Book Stall, New Delhi, 1979.

Patinkin, Money, Interest and Prices, Harper and Row, New York

Khan M. Y., Indian Financial System, Tata McGraw Hill, New Delhi, 1996.

Coghlan, R., The Theory of Money and Finance, Macmillan, London, 1980

**ECO-101-DE-52050: Institutional Economics**

<p><b>Total Credit: 4 (4L)</b>  <b>Minimum Contact Hours: 60</b>  <b>Internal Assessment: 20 Marks</b>  <b>End Semester Exam: 80 Marks</b>  <b>Full Marks: 100</b></p>
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**Course Objectives:** To form a detailed view about current development of new institutional theory, about main instruments and approaches. Further to develop competences, which allow to implement the methodology of new institutional economics towards solving practical problems.

**Course Outcomes:**

- CO 1. Learners will have information about different concepts of institutional economics.
- CO 2. Learners will have knowledge about how different institutions affect the transaction costs in a economy.
- CO 3. Learners will know about different aspects of contract theories.
- CO 4. Learners will know about different aspects of property rights.

Module	Content	Contact Hours	CO
Module 1	<p><b>Institutions and Institutional Economics</b></p> <p>Definitions of institutions: different approaches. Functions of institutions. Coordination, cooperation, and redistribution problems. Norms. Rules. Conventions. Enforcement systems. Examples based on game theory. Formal and informal institutions.</p> <p>Rational choice model. Full and perfect information. Bounded rationality. Incomplete and imperfect information. Ultimate game. Beauty contexts game. Assumptions of New Institutional Economics. Incomplete specification of rules.</p>	15	CO1
Module II	<p><b>Institutions and Transaction Costs</b></p> <p>Definitions of transaction and transaction costs. Transaction cost theory. Specific investments. Site specificity, physical asset specificity, dedicated assets. Governance forms.</p>	15	CO2

	Fundamental transformation. North-Eggertsson classification of transaction costs. Transaction goods. Measurement costs.  The role of networks in institutional analysis. Evolutionary model of convention formation in different structures. Basic measures: centrality, closeness, betweenness.		
Module III	<b>Contract Theories</b>  Incomplete contracts. Grossman-Hart model. Decision rights. Principal-agent framework. Asymmetric information. Adverse selection. Signaling. Screening. Moral hazard. Hidden action and information. Delegation. Agency costs. Incentive contracts. Opportunistic behavior.	15	CO3
Module IV	<b>Institutions of Property Rights</b>  Definition of property rights. Categories of property rights. Property rights regimes. Collective property. Common property. Residual rights. Land rights. The naive theory of property rights emergence. The Coase theorem and externalities.  Agency problems. Separation of ownership and control. Residual rights and organizational forms. Open corporations. Partnerships. Non-profit organizations. Measurement of agency costs.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	2	2	2	2	3	3	-	2	2	-	2
CO2	3	2	3	2	2	1	2	2	3	-	2	2	2	2
CO3	3	2	3	2	2	2	2	2	3	-	2	2	2	2
CO4	3	2	3	2	2	2	2	2	3	-	2	2	-	2
Average	3.0	2.0	3.0	2.0	2.0	1.75	2.0	2.25	3.0	-	2.0	2.0	1.0	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### References:

Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does Working from Home Work? Evidence from a Chinese Experiment\*. Quarterly Journal of Economics, 130(1), 165–218. <https://doi.org/10.1093/qje/qju032>

COASE, R. H. (1988). 1. The Nature of the Firm: Origin. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsbas&AN=edsbas.6EF0F9C3>

Economic behavior and institutions, Eggertsson, T., 1997



- Furubotn, E. G., & Richter, R. (2005). *Institutions and Economic Theory : The Contribution of the New Institutional Economics* (Vol. 2nd ed). Ann Arbor: University of Michigan Press. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsebk&AN=469024>
- Guiso, L., Sapienza, P., & Zingales, L. (2006). Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives*, 20(2), 23–48. <https://doi.org/10.1257/jep.20.2.23>
- Hendrikse, G., Hippmann, P., & Windsperger, J. (2015). Trust, transaction costs and contractual incompleteness in franchising. *Small Business Economics*, 44(4), 867–888. <https://doi.org/10.1007/s11187-014-9626-9>
- Johnson, N. D., & Nye, J. V. C. (2011). Does fortune favor dragons? *Journal of Economic Behavior & Organization*, (1), 85. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=edslive&db=edsrep&AN=edsrep.a.eee.jeborg.v78y2011i1p85.97>
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsebk&AN=510978>
- Property rights for the poor: effects of land titling. (2010). Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsbas&AN=edsbas.F39178F5>
- Raymond Fisman, & Shang-Jin Wei. (2009). The Smuggling of Art, and the Art of Smuggling: Uncovering the Illicit Trade in Cultural Property and Antiques. *American Economic Journal: Applied Economics*, (3), 82. <https://doi.org/10.1257/app.1.3.82>
- Steven Tadelis. (2016). Reputation and Feedback Systems in Online Platform Markets. *Annual Review of Economics*, (1), 321. <https://doi.org/10.1146/annurev-economics-080315-015325>
- Sümeýra Atmaca, Koen Schoors, & Marijn Verschelde. (2016). Bank Loyalty, Social Networks And Crisis. Working Papers of Faculty of Economics and Business Administration, Ghent University, Belgium. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsrep&AN=edsrep.p.rug.rugwps.16.923>

## ECO-101-DE-52060: Behavioural Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objective:

*The objectives of the course is to understand why people make economically irrational decisions. Behavioural economics uses psychological experimentation to develop theories about human decision making.*

### Course Outcomes:

CO1. The learners will acquire knowledge about the interaction between Economics and economics in making market transactions

CO2. The learners will understand the notions of bounded rationality in optimizing Behaviour of consumer and the firms.

CO3. The irrational behavior of economic agents will be understood by the learners through the behavioral game theory

CO4. The learners will be able to learn the firms' reactions to behavioral consumer and behavioral finance in terms of market efficiency.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Introduction and Reference-Dependent Preferences</b> Themes in Economics and economics- Illustration through examples; Kahneman/Tversky classic experiments; Prospect theory; Market implications: labor supply, marketing, industrial organization	15	CO1
<b>Module II</b>	<b>Choice Over Time and Bounded Rationality</b> Samuelson's exponential-discounting; Self-control and hyperbolic discounting; Harmful substances and government policy; Anxiety, optimism & anticipation; Misperception of utility; Heuristics and biases; Views of bounded rationality	15	CO2
<b>Module III.</b>	<b>Behavioral Game Theory and Social Preferences</b> Game theory & behavioral game theory; Irrational players and equilibrium; Classic experiments; "Distributional" and "intention" models; Labor markets: wage setting and unemployment	15	CO3

<b>Module IV</b>	<b>Firms' Reactions to Behavioral Consumers and Behavioural Finance</b> The pricing of credit cards and mortgages; Shrouded attributes; Principles for intervention. Arbitrage and limits thereof; Market efficiency and economic efficiency; Small investors	15	CO4
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	3	2	2	2	2	3	2	3	2	2	-	2
CO2	2	2	2	2	2	1	2	2	2	2	2	2	2	2
CO3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CO4	2	2	3	2	2	2	2	2	2	2	2	2	-	2
Average	2.0	2.0	2.5	2.0	2.0	1.75	2.0	2.25	2.0	2.25	2.0	2.0	1.0	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Nick Wilkinson and Matthias Klaes, *An Introduction to Behavioral Economics*.

Daniel Kahneman, *Thinking Fast and Slow*. 45

Ariel Rubinstein, *Modelling Bounded Rationality*, MIT Press 1998

David Just, *Introduction to Behavioural Economics*.

Colin Camerer, George Loewenstein and Matthew Rabin, *Advances in Behavioural Economics*.

John Kagel and Alvin Roth, *The Handbook of Experimental Economics*.

Richard Thaler, *The Winner's Curse*.

Richard Thaler and Cass Sunstein, *Nudge: Improving Decisions about Health, Wealth and Happiness*.

Dan Ariely, *Predictably Irrational: The Hidden Forces That Shape Our Decisions*.

Richard H Thaler, *Misbehaving: The Making of Behavioural Economics*.

Steven D Levitt and Stephen J Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*, Kindle Edition.

## ECO-101-DE-52070: POPULATION ECONOMICS

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objective:

*The demographic behaviour is highly complex in view of its being enmeshed in the socio-cultural matrix of the society. However, the process of industrialization and urbanization tend to reduce the strength of traditional mores and values of the society. This results in the steady growth of market relations and use of cost-benefit analysis in decision making process. The application of economic theory to the study of population is not only relevant but also useful, so population economics is included.*

### Course Outcomes:

- (1) The learners will acquire knowledge about Population growth and the various theories of fertility.*
- (2) They will also learn about the various measures of mortality and how to construct a life table.*
- (3) They will acquire knowledge on issues related to migration and urbanisation and how they impact population.*
- (4) The learners will have a better understanding about the growth and projection of population and the evolution of the population policy of India.*

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Population Growth and Fertility</b> Trends of population growth since the beginning of 20 <sup>th</sup> century; basic measures of demography: rates and ratios; data sources: census, surveys and vital statistics. Measures of fertility: CBR, GFR, TFR, cumulative fertility rate, child women ratio, gross and net reproduction rates; determinants of fertility: Malthusian view and its shortcomings; social mobility and fertility: Dumont's social capillarity theory; economic models: Easterlin's and Becker's theories of fertility and their critical evaluation.	15	CO1
<b>Module II</b>	<b>Mortality</b> Basic measures: CDR, age specific death rate; early neonatal, neonatal, infant mortality rates, perinatal mortality and maternal mortality rates ; Life table, complete and abridged life table and their construction ; trends of mortality in developed and	15	CO2

	developing countries ; determinants of mortality; causes of high mortality in LDCs with special reference to India; measures taken in India to improve health status.		
<b>Module III</b>	<b>Migration and Urbanization</b> Measures of migration, internal and international migration: theories of migration: push and pull factors, Lee's and Harris Tadaro models. Urbanization: its measures and determinants; factors propelling urbanization in developed countries; urbanization in developing countries: its patterns and factors promoting urbanization in the developing countries with special reference to India; problems of urbanization in developing countries.	15	CO3
<b>Module IV</b>	<b>Population Policy</b> Arithmetic, geometric and exponential growth rates of population; relation between growth rate and doubling time of population, age distribution (age pyramid), young and old age dependency ratios and their determinants; dependency ratio and savings, physical and human capital formation; population estimates and projections: mathematical and demographic methods; measures of labour force; factors determining labour force participation rate. Major demographic features of India's population (birth rate, death rate and their trends); evaluation of family welfare programme in India, National Population Policy 2000; Manpower planning in India.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	2	3	2	2	1	1	-	2	2	-	3
CO2	3	2	2	2	1	2	2	1	2	-	2	2	-	3
CO3	3	2	2	2	2	2	2	1	2	-	1	2	-	3
CO4	1	2	2	2	2	1	2	1	2	-	1	2	--	3
Average	2.50	2.0	1.75	2.0	2.0	1.75	2.0	1.0	1.75	-	1.50	2.0	-	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Shryock, H., *The Methods and Materials of Demography*.

Bogue, D J., *Principles of Demography*

Barclay, G W., *Techniques of Population Analysis*

United Nations Publications, *The Determinants and Consequences of population Trends* (Series No.50)

Goon, Gupta & Dasgupta, *Fundamental Statistics (Vol-II)*

Kapoor, V K, *Fundamental of Applied Statistics*.

Saxena, P. C. and Talwar P. P. (Eds.), *Recent Advances in the Techniques of Demographic Analysis*, Himalayan Publishers, Bombay, 1988.

Coale, A. J. and E. M. Hoover, *Population Growth and Economic Development in Low Income Countries*, Oxford University Press.

Becker, G. S., *An Economic Analysis of Fertility in Demographic and Economic Change in Developed Countries*, A Report of NBER, Princeton University Press, Princeton, 1960.

Easterlin, R. A., *An Economic Framework for Fertility Analysis Studies in Family Planning*, 1975.

Leibenstein, *Economic Backwardness and Economic Growth*, Wiley, New York, 1957.

Leibenstein, An Interpretation of the Economic Theory of Fertility, Promising Path or Blind Alley, *The Journal of Economic Literature*, XII (2), 1974.

Agarwala, S. N., *India's Population Problems*, Tata - Mcgraw Hill, New Delhi.

Srinivasan, K., *Basic Demographic Techniques and Applications*, Sage Publications, New Delhi, 1992.

Bhende and Kanitkar, *Principles of Population Studies*, Himalaya Publishing House, Delhi, 2003.

Deepak K Mishra (Ed) *Internal Migration in Contemporary India*, Sage Publications, New Delhi, 2016

## ECO-101-DE-52080: GENDER AND DEVELOPMENT ECONOMICS

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objective:

*Gender has occupied a very important area of serious study and research. This is highly relevant in view of the age-old gender discrimination being totally unacceptable. This paper tries to identify some of the basic gender related issues and show the feasible steps for bringing gender equality.*

### Course Outcomes:

- (1) The course helps the learner to reflect upon the linkages between Gender and Economics.*
- (2) They will also learn about the issues related to work and employment and Segregation in labour market.*
- (3) The learner will acquire knowledge about the issues related to agriculture, environment, health and well-being from the gender perspective.*
- (4) The Mainstreaming of gender concerns will ensure that the learner will know about gender under capitalism*
- (5) This paper has created a very good response among the learners and it has improved their understanding of the gender related issues.*

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Gender and Economics: Introduction</b> Gender and feminisms - Economic methodology and feminist critiques - Development: Meaning and concept - Human development and gender - Construction of Human Development Index and Gender-related Development Index and criticisms.	15	CO1
<b>Module II</b>	<b>Work and Employment</b> Types of work, work participation rates, labour force participation rate - Female labour supply: Neo-classical theory - Models of allocation of time: Becker and Mincer - Segregation in labour market: Discrimination in work place, measures of discrimination, Differential employment - Household work and non-market work: Time Use Survey.	15	CO2
<b>Module III</b>	<b>Agriculture, Environment, Health and Well-Being</b> Gender and property rights: Theories, experiences in South Asia, India and Arunachal Pradesh - Boserup's thesis on gender and agricultural change and its criticisms - Technological change and female labour - The impact of Green Revolution - Gender,	15	CO3

	environment and development: Linkages - Gender issues in natural resource management. Sex ratio, child sex ratio, son preference, differential mortality between sexes - Differential access to health care - Intrafamily distribution of food and nutrition - Women's autonomy, fertility and health status - Health and poverty.		
<b>Module IV</b>	<b>Gender and Globalisation</b> Women under capitalism: Review of political economy approaches - Structural adjustment and women - Gender, informalisation and flexible production - Review of gender and development policies: Role of international bodies, governments and civil society institutions - Mainstreaming gender concerns: Methods and approaches.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	1	2	3	2	2	1	1	-	2	2	-	3
CO2	2	2	2	2	1	2	1	1	2	-	2	2	-	2
CO3	2	2	2	2	2	2	1	1	2	-	1	2	-	2
CO4	1	2	2	2	2	1	2	1	2	-	1	2	--	3
Average	1.50	2.0	1.75	2.0	2.0	1.75	1.5	1.0	1.75	-	1.50	2.0	-	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Dewan, Ritu, 'Gender in Neoclassical Economics: Conceptual Overview', *Economic and Political Weekly*, Vol 30, No 17, pp 46-48, 1995.

Elson, D., Theories of Development. Chapter 6 in *Gender and Development: Theoretical, Empirical and Practical Approaches*, Lourdes Beneria with Savitri Bisnath (eds.). Cheltenham U. K.: Edwin Elgar Publishing Limited. [first published in the Elgar companion to feminist economics in 1999], 2001.

Ferber, Marianne A. and J A Nelson (Eds), *Beyond Economic Man: Feminist Theory and Economics*, University of Chicago Press, Chicago, 1993.

Nussbaum, Martha C., *Women and Human Development: The Capability Approach*, Kali for Women, New Delhi. (Introduction: Feminism and International Development), 2000.

Ostergaard, L., 'Gender' in L. Ostergaard (ed) *Gender and Development: A Practical Guide*, Routledge, London and New York, 1992.

Seth, M., *Women and Development: The Indian Experience*, Sage Publications, New Delhi, 2000.

Amsden, Alice H., 'Introduction' in Alice H. Amsden (ed), *The Economics of Women and Work*, St. Martin's Press, New York, pp 11-35, 1980.

Anker Richard, 'Theories of Occupational Segregation by Sex: An Overview', in M F Loutfi (Ed), *Women, Gender and Work: What's Equality and How do We Get there?* ILO, Rawat Publication, Jaipur, 2002.

Becker, Gary, 'A Theory of Allocation of Time', *The Economic Journal*, Vol 80, No. 200, pp 493-517, 1965.

Cain, Glen g, 'The Economic Analysis of Labour Market Discrimination: A Survey', in O Ashenfelter and R Layard (eds), *Handbook of Labour Economics*, Vol I, Elsevier Science Publishers, BV, 1986.

Hirway, I., 'Conceptual and Methodological Issues of Time Use Studies', *Proceedings of the International Seminar on Time Use Studies*, CSO, Government of India, New Delhi, 1999.

Jose, A V (Ed), *Limited Options: Women Workers in Rural India*. ARTEP, ILO, New Delhi, 1989.

Raju, Saraswati and Depica Bagchi (Eds), *Women and Work in South Asia: Regional Patterns and Perspectives*, Routledge, London and New York, 1993.

Standing, G., *Labour Force Participation and Development*, International Labour Office, Geneva, 1978.



- Agarwal B, *A Field of One's Own: Gender and Property in South Asia*, Cambridge University Press, Cambridge, 1995.
- Agarwal, B., 'Environmental Action, Gender Equity and Women's Participation', *Development and Change*, Vol 28, pp 1-44, 1997.
- Boserup, Ester, *Women's Role in Economic Development*, St. Martin's Press, New York, 1970.
- Krishna, Sumi, 'A "Genderscape" of Community Rights in Natural Resource Management', in Sumi Krishna (ed) *Livelihoods and gender: Equity in Community Resource Management*, Sage, New Delhi, 2004.
- Shiva, V., *The Violence of Green revolution: Third World Agriculture, Ecology and Politics*, Third World Network, Penag, 1991.
- Unni, Jeemol, *Women's Participation in Indian Agriculture*, Oxford and IBH Publishing Co, New Delhi, 1992
- Agnihotri, S.B., *Sex Ratio Patterns in the Indian Population—A Fresh Exploration*. New Delhi: Sage, 2000.
- Basu, A., 'Is Discrimination in Food Really Necessary for Explaining Sex Differentials in Childhood Mortality?' *Population Studies*, Vol. 43, No.2, pp. 193-210, 1989 .
- Das Gupta, Monica, Lincoln C. Chen and T. N. Krishnan (Eds), *Women's Health in India: Risk and Vulnerability*, OUP, New Delhi, 1996.
- Dasgupta, Monica and P.N. Mari Bhat, 'Intensified Gender Bias in India: A Consequence of Fertility Decline', in M. Krishnarajet al. (Eds.), *Gender, Population and Development*, pp. 73-93. New Delhi: Oxford University Press, 1998
- Dreze, J and A. Sen, *India: Economic Development and Social Opportunity*, OUP, New Delhi (Chapter7: Gender Inequality and Women's Agency), 1996
- Dyson, T and Moore, M., 'On Kinship structure, Female Autonomy and Demographic Behaviour in India', *Population and Development Review*, Vol.9, No1, 1983.
- Harriss, B., 'The Intrafamily Distribution of Hunger in South Asia' in J. Dreze and A.Sen (Eds) *The Political Economy of Hunger, Vol.I*, Clarendon, Oxford, 1990.
- Kynch, J and A Sen, 'Indian Women: Well-being and Survival' *Cambridge Journal of Economics*, Vol 7, pp 363-380, 1983.
- Oxaal, Z. and Cook, S., 'Health and Poverty: A Gender Analysis.' BRIDGE Report No. 46, prepared for the Swedish International Development Agency. IDS, Brighton, 1998.
- Standing, H., 'Gender and Equity in Health Sector Reform Programmes: A Review', *Health Policy and Planning: A Journal on Health in Development*, Vol. 12, No. 1, Oxford University Press, Oxford, 1997.
- Sudha, S. and S. Irudaya Rajan., 'Female Demographic Disadvantage in India 1981-91: Sex Selective Abortions and Female Infanticide', *Development and Change*, Vol. 30, pp. 585-618, 1999.
- Ghosh, Jayati, *Globalisation, Export-Oriented Employment for women and Social Policy: A Case Study of India*. Paper prepared for the UNRISD project on Globalization, Export-Oriented Employment for Women and Social Policy. New Delhi, Jawaharlal Nehru University, 2001.
- Kabeer, N., 'Resources, Agency, Achievements: Reflections on the Measurement of Empowerment', *Development and Change* Vol. 30, No. 3, pp. 435-464, 1999.
- Mies, M., 'Gender and Global Capitalism' in Leslie Sklair (Ed), *Capitalism and Development*, Routledge, London and New York, 1994.
- Moser, C. O. N., *Gender Planning in the Third World: Meeting Practical and Strategic Gender Needs*. *World Development* Vol. 17, No.11, pp. 799-1825, 1989.
- Standing, G., *Global Feminization Through Flexible Labor: A Theme Revisited*, *World Development*, Vol 27, No 3, pp 583-602, 1999.
- Tiano, S., 'Gender, Work and World Capitalism' in B B Hess and M Marx Ferree (Eds), *Analyzing Gender: A Handbook of Social Science Research*, Sage, Newbury Park, 1987.
- Unni, J., 'Gender and Informality in Labour Market in South Asia', *Economic and Political Weekly*, Vol. 34, No. 26, pp. 2263-73, 2001.

## ECO-101-DE-52090: Game Theory

<b>Total Credit: 4 (4L)</b> <b>Minimum Contact Hours: 60</b> <b>Internal Assessment: 20</b> <b>End Semester Exam: 80</b> <b>Full Marks: 100</b>
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**Learning Objective:** *This course has been designed to impart the student extensive knowledge of game theory and its application in economic analysis.*

**Course Outcomes:**

CO1: The learners will learn types of games and its solution.

CO2: They will also learn about the concept of Nash equilibrium and its implication.

CO3: The learners will gain knowledge about the extensive form games and backward induction.

CO4: They will also acquire knowledge about the use of game theory in oligopoly market analysis.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Introduction to Game theory</b> Concepts- players, strategy, payoff, saddle point, value of the game; Types- two-person zero-sum game, non-zero-sum game, variable sum game, constant-sum game, cooperative and non-cooperative game; solution of a game with saddle point-pure strategy; rules of dominance; solution of a game without saddle point- mixed strategy	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>Nash Equilibrium and Prisoner's dilemma</b> Nash equilibrium and its economic application, Prisoner's dilemma and its economic application, Repeated games, Finitely repeated Prisoner's Dilemma and Infinitely repeated Prisoner's Dilemma.	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>The Extensive Form Games and Backward Induction</b> The Extensive form; Perfect information game; Backward induction and its application	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Game Theory and Oligopoly</b> Traditional tools of economic theory and decision making under oligopoly; Two person Zero-sum game - Certainty model, Uncertainty model; Two Person Non-zero-sum game and duopoly	<b>15</b>	<b>CO4</b>

### Mapping of POs/ PSOs with COs

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3	PSO 4
<b>CO1</b>	3	2	-	1	1	2	1	2	3	-	3	1	3	3
<b>CO2</b>	3	2	-	1	2	2	1	2	3	-	3	1	3	3
<b>CO3</b>	3	2	-	1	2	2	1	2	3	-	3	1	3	3
<b>CO4</b>	3	2	-	1	2	2	1	2	3	-	3	1	3	3
<b>Average</b>	3.0	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	3	3

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

#### **Recommended Books:**

Baumol, W. J., *Economic Theory and Operations Analysis*, PHI Learning Private Limited, New Delhi, 2010

Parijat K. Dutta, *Strategies and Games*, The MIT Press, Cambridge, Massachusetts, London, England

Koutsoyiannis, A., *Modern Micro Economics*, ELBS with Macmillan, Hong Kong

Sharma, J. K., *Operations research Theory and Application*, Trinity, Delhi, 2016

Taha, A. Hamdy, *Operations Research: An Introduction*, Prentice Hall of India Private Limited, New Delhi, 2002

## ECO-101-RC-5210: RESEARCH PUBLICATION AND ETHICS

<b>Total Credit: 4 (4L)</b> <b>Minimum Contact Hours: 60</b> <b>hours</b> <b>Internal Assessment: 20 marks</b> <b>End Semester Exam: 80 marks</b> <b>Full Marks: 100</b>
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### Learning Objectives:

To make the research scholars aware about the research and publication ethics, and publication misconducts.

### Course Outcome:

CO1. Students will know about basic concepts of philosophy and different branches of philosophy.

CO2. The outcome of the course is to acquaint the research Scholars about the research and publication ethics

CO.3. They will be informed about publication misconduct and violation of publication ethics.

CO.4. They will be informed about predatory publishers and journals.

Module	Content	Contact Hours	CO
<b>Module 1</b>	<b>Philosophy and Ethics</b> Introduction to western philosophy: definition, nature and scope, concept and branches; Branches of Indian philosophy-their main ideas. Ethics: definition, moral philosophy, nature of moral judgements and reactions.	10	CO1
<b>Module II</b>	<b>Ethics in Economics</b> Adam Smith and the study of ethics; Sen’s view on ethics in economics; Ethics and sustainable economy	15	CO2
<b>Module III</b>	<b>Scientific Conduct</b> Ethics with respect to science and research; Intellectual honesty and research integrity; Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP), Redundant publications: duplicate and overlapping publications, salami slicing; Selective reporting and misrepresentation of data	20	CO3
<b>Module IV</b>	<b>Publication Ethics and Misconduct</b> Publication ethics: definition, introduction and importance; Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.; Conflicts of interest Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, types; Violation of publication ethics, authorship and contributor ship; Identification of publication misconduct, complaints and appeals; Predatory publishers and journals	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	2	1	2	2	2	1	-	-	-	1	1
CO2	2	1	1	1	1	1	1	1	2	-	2	2	-	1
CO3	2	2	-	-	2	2	-	1	2	-	-	-	-	1
CO4	3	2	1	1	2	2	2	2	2	-	-	-	-	1
Average	2.25	1.75	1	1	1.5	1.75	1.25	1.5	1.75	-	0.5	0.5	0.25	1

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings

Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179-179. <https://doi.org/10.1038/489179a>

Bird, A. (2006). *Philosophy of Science*. Routledge.

Carlos, C. M. (2000). *Intellectual property rights, the WTO and developing countries: the TRIPS agreement and policy options*. Zed Books.

Chaddah, P. (2018). *Ethics in Competitive Research: Do not get scooped; do not get plagiarized*. ISBN: 978-9387480865.

Indian National Science Academy (INSA). (2019). *Ethics in Science Education, Research and Governance*. ISBN: 978-81-939482-1-7. <http://www.insaindia.res.in/pdf/EthicsBook.pdf>

Macintyre, A. (1967). *A Short History of Ethics*. London.

National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.

Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1-10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>

Satarkar, S. V. (2000). *Intellectual property rights and Copy right*. EssEss Publications.

Wadehra, B. L. (2000). *Law relating to patents, trademarks, copyright designs and geographical indications*. Universal Law Publishing.

White, M. D. (Ed.). (2019). *The Oxford Handbook of Ethics and Economics*. Oxford University Press.

## ECO-101-CW-61010: Agricultural Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** This paper has been designed to provide theoretical and analytical knowledge of Agricultural Economics to the students and also to provide them insight into the issues of Indian agriculture in the changed global scenario.

### Course Outcome:

**CO1.** The learners will understand about the nature of Agricultural Economics, measures of farm efficiency, farm mechanization, agricultural production function, and supply response models.

**CO2.** They will also learn about the various theories of agricultural development.

**CO3.** The learners will also learn about the issues related to agricultural finance and agricultural marketing.

**CO4.** The learners will acquire knowledge in issues in agricultural development in India, issues related to new technology, food security issue, WTO and Indian agriculture.

Modules	Content	Contact Hours	CO
Module 1	Introduction to Agricultural Economics and Farm Management Nature of Agricultural economics - Interdependence and complementarities between agriculture and industry - Farm efficiency measures - Farm mechanization. Nature of agricultural production function: Spillmans, Cobb-Douglas type, price expectation and Cobweb theorem - Nerlove's model - Marketed and marketable surplus - Mathur-Eizkel hypothesis.	15	CO1
Module 2	Theories of Agricultural Development Problems of labour surplus economy: Lewis' model and Jorgenson's models – Theories of agricultural development: Schultz and Mellor - Farm household models: Chayanov, Barnum-Squire and Low's models – Share tenancy: Marshall and Cheung models	15	CO2
Module 3	Agricultural Finance and Marketing Rural credit market: Lenders' risk hypothesis, monopolistic credit market –Sources of agricultural finance: Cooperative	15	CO3

	credit society, Commercial banks, Regional rural banks and NABARD –Microfinance - Rural credit policy. Agricultural marketing in India – Cooperative marketing – Government measures to improve the system of agricultural marketing.		
Module 4	Issues in Agricultural Development in India  New technology and its impact on output, employment and income distribution, Problems of diffusion of new technology - Food security and PDS – Agricultural subsidies and price policy – Public investment in agriculture – National agriculture policy - WTO and Indian agriculture: Agreement of Agriculture (AoA), Sanitary and Phyto-sanitary measures and their implications.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	1	1	1	2	-	2	1	-	2	2	-	2
CO2	2	2	1	1	1	2	-	2	1	-	2	2	-	2
CO3	2	3	3	2	1	1	-	3	1	1	1	2	1	3
CO4	2	3	3	2	2	1	-	3	1	1	1	2	1	3
Average	2	2.75	2.0	1.5	1.25	1.5	-	2.5	1.0	0.5	1.5	2.0	0.5	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

#### Recommended Readings:

Heady, E.O., Economies of Agricultural Production and Resource Use, Prentice Hall.

Heady, E.O. and J. Dhillon, Agricultural Production Functions, Kalyani Publishers, New Delhi.

Ellis, Frank, Peasant Economics: Farm Household and Agrarian Development, Cambridge University Press.

Foster, G.W. and M.C. Leoger, Elements of Agricultural Economics, Prentice Hall.

Bardhan, P.K., Interlocking Factor Markets and Agrarian Development: A Review of Issues, Oxford Economic Paper, Vol- 32, No., 1980.

Bardhan, P.K., Land, Labour and Rural Poverty, Oxford University Press, 1984.

Basu, K., The Less Developed Economy: A Critique of Contemporary Theory, Oxford University Press, 1984.

Basu, K., Analytical Less Developed Economy, Oxford University Press.

Bhaduri, A., Unconventional Economic Essays, Oxford University Press, 1993.

Mishra S.K and V.K Puri, Indian Economy, Himalayan Publishing House (latest edition).

Soni, R.N, Leading Issues in Agricultural Economics, Vishal Publishing Co. (Latest edition).

Srivastav, O.S, Theories and Policy of Agricultural Economics, Anmol Publications Pvt. Ltd. 2010.

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:**

- a) Students will be able to industrial organization & it provides a foundation for the study of many other fields related to industry.
- b) Students will be able to understanding an interactions among firms in the economy, including business strategy, corporate finance, marketing, international trade, banking, and the economics of organizations.
- c) It provides an overview of the historic evolution of industrial economies while focusing on recent developments in the study of firms' behavior.

**Course Outcomes:**

**CO1.** Students should be able to Identify and understand different market structures and their decisions on price and output.

**CO2.** Students should be able to Understand about the determinants of Industrial Location.

**CO3.** Students should be able to understand the Implications of Investment, Research, Development & Innovation in Industry

**CO4.** Students should be able to understand different market structure.

<b>Modules</b>	<b>Content</b>	<b>Contact Hours</b>	<b>COs</b>
<b>Module 1</b>	<p><b>Introduction</b></p> <p>Meaning and Scope of Industrial Economics, Need and Significance of The Study of Industrial Economics, Agricultural Development and Industrialization, Factors Affecting Industrial Development .</p> <p>Industrial Decisions- Market Structure Competition or Co-Operation. Firm Behavior &amp; Market Outcomes, Cartel , Collusion , Merger.</p>	15	CO1
<b>Module 2</b>	<p><b>Industrial Location Analysis.</b></p> <p>Meaning of Industrial Location, Determinants of Industrial Location, Weber's &amp; Florence's Theories of Industrial Location</p>	15	CO2



<b>Module 3</b>	<b>Investment, Research, Development &amp; Innovation in Industry</b>  <b>Investment Decisions</b> - The Nature & Types of Investment Decisions , Preparation of the Profile of a Project , Pricing Methods of Project Evaluation , Risk and Uncertainties in Project Appraisal, Research, Development and Innovation - Meaning, R & D Expenditure as an Investment Decision, The Relationship between R & D, Inputs & Outputs; Rationalization & Automation- Meaning & Objectives, Benefits, Problems & Policy.	15	CO3
<b>Module 4</b>	<b>Price and Non-price Competition</b>  General Situation for Pricing Decisions,Pricing Under Perfect & Imperfect Competition: in theory, Pricing Procedures in Practice, Pricing Methods., Pricing in Public Enterprises, Price Wars: Theories and Evidence.  Meaning of Non-Price Competition& Product Differentiation, Horizontal Product Differentiation, Brand Proliferation as an Entry Deterrence Strategy, Vertical Product Differentiation, Price Discrimination: First- Second-& Third Degree Price Discrimination	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	1	2	-	2	1	-	2	2	2	3
CO2	3	2	1	1	1	2	-	2	1	-	2	2	2	3
CO3	3	2	3	2	1	1	-	3	1	1	1	2		2
CO4	3	2	3	2	2	1	-	3	1	1	1	2	2	2
Average	3.0	2.0	2.0	1.5	1.25	1.5	-	2.5	1.0	0.5	1.5	2.0	2.0	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Ferguson, Paul R. and Glenys J. Ferguson, (1994), Industrial Economics - Issues and Perspectives, Macmillan, London.

Shepher, William G. (1985), The Economics of industrial Organization, Prentice - Hall, Inc, Englewood Cliffs, N. J.

Staley, E & Morse R. (1965), Modern Small Industry for Developing Countries, McGraw Hill Book Company.

Elizabeth E. Bailey William J. Baumol : Deregulation and the Theory of Contestable Markets,1984, Volume 1 Issue 2 Yale Journal on Regulation.

Reza Aboutalebi : The Taxonomy of International Manufacturing Strategies , Surrey Business School, University of Surrey, Guildford, UK ,

Joe Chen 111 8.4 A taxonomy of business strategies Lecture Notes: Industrial Organization ,

G. Symeonidis : Industrial Economics ,2011, London School of Economics & Political Science,

Ahluwalia, I. J. (1985), *Industrial Growth in India - Stagnation since Mid-sixties*, Oxford University Press, New Delhi.

Ahluwalia, I. J. (1991), *Productivity and Growth in Indian Manufacturing*, Oxford University Press, New Delhi.

Desai, A. V. (1994), "Factors Underlying the Slow Growth of Indian Industry", in *Indian Growth and Stagnation - The Debate in India* Ex. Deepak Nayyar, Oxford University Press.

Vepa R. K. (1988), *Modern Small Industry in India*, Sage Publications.

Srivastava, M.P. (1987), *Problems of Accountability of Public Enterprises in India*, Uppal Publishing House, New Delhi.

Mohanty, Binode (1991), Ed. *Economic Development Perspectives*, Vol. 3, public Enterprises and Performance, Common Wealth Publishers, New Delhi.

Jyotsna and Narayan B. (1990), "Performance Appraisal of PEs in India: A Conceptual Approach", in *Public Enterprises in India - Principles and Performance*, Ed. Srivastave V.K.L., Chug Publications, Allahabad

## ECO-101-CW-61030: Econometrics-II

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** This course is structured to enable the students to learn some alternate methods of estimation and econometric modeling

**Course Outcomes:**

CO1: The students will learn about the generalised least squares.

CO2: They will learn about dummy variable and limited dependent variable models

CO3: The learners will the simultaneous equation models and its estimation.

CO4: They will also get introduced to the time series analysis.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Alternative Methods of Estimation</b> Review the problems of autocorrelation and heteroscedasticity; Aitken's Generalised least squares (GLS) - method of estimation, properties; Feasible estimator, GLS with general linear restrictions, a priori information	15	CO1
<b>Module II</b>	<b>Dummy Variable and Limited Dependent Variables Models</b> Nature of qualitative factors, use of Dummy Variables for capturing the effect of qualitative factors, interpretation of coefficients of dummy variables; dummy variable trap and consequences; Qualitative Choice variables, Linear probability model: LOGIT, PROBIT and TOBIT.	15	CO2
<b>Module III</b>	<b>Simultaneous Equation Models</b> Simultaneous equations system, two-way linkage – OLS estimation and simultaneous equation bias - Structural form and reduced form – Identification, rules of identification, rank and order conditions; seemingly uncorrelated Regression equation (SUR model), Recursive system. Estimation of Simultaneous equations: Indirect Least Square, Instrument Variable method, 2Stage Least Square	15	CO3
<b>Module IV</b>	<b>Introduction to Time Series Analysis</b> Meaning and component of time series; Stationary and Non-stationary Time Series; trend: deterministic and stochastic; Random Walk with and without drift, Auto-regression and Autocorrelation; Spectrum of a time series, Random walk.	15	CO4

### Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO2</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO3</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>CO4</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>Average</b>	1.0	2.0	2.5	-	1.0	1.5	1.0	2	3	-	1	1	3	3

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

#### **Recommended Readings:**

- Gujarati, D.N. *Basic Econometrics*, McGraw Hill, New Delhi, 1995.
- Green, W. H. *Econometric Analysis*, fifth edition, Pearson Publication, 2009
- Johnston, J, *Econometric Methods*, McGraw Hill, Book Co., London, 1991.
- Johnson, R. A. and D.W. Wichern. *Applied Multivariate Statistical Analysis*, Fifth edition, PHI learning Pvt. Ltd., New Delhi, 2009.
- Koutsoyiannis, A., *Theory of Econometrics*, The MacMillan Press Ltd., London, 1977.
- Maddala, G.S., *Econometrics*, McGraw Hill, New York, 1999.
- Salvatore, Dominick and Derrick Reagle, *Statistics and Econometrics*, Schaum's Outline Series, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2005.
- Stock, James H. and Mark W. Watson, *Introduction to Econometrics*, Pearson Education, 2004.
- Wooldridge, J. F. *Introductory Econometrics: A Modern Approach*, Third edition: South-Western Cengage Learning India, 2008.

<p><b>Total Credit: 4 (4L)</b>  <b>Minimum Contact Hours: 60</b>  <b>Internal Assessment: 20 Marks</b>  <b>End Semester Exam: 80 Marks</b>  <b>Full Marks: 100</b></p>
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**Course Objective:**

*The demographic behaviour is highly complex in view of its being enmeshed in the socio-cultural matrix of the society. However, the process of industrialization and urbanization tend to reduce the strength of traditional mores and values of the society. This results in the steady growth of market relations and use of cost-benefit analysis in decision making process. The application of economic theory to the study of population is not only relevant but also useful, so population economics is included.*

**Course Outcomes:** At the end of the course, students should be able to

CO1. The learners will acquire knowledge about the basics of demography and the various theories of Demography.

CO2. They will also learn about the various components of population change, namely - fertility, mortality and Migration

CO3. They will acquire knowledge about population growth and the concepts of projections, its uses and about the various methods of population projection

CO4. The learners will have a better understanding of the population composition and distribution

Modules	Content	Contact Hours	COs
Module I	<p><b>Basics of demography and Theories of population</b>                      Meaning and subject matter of demography; Linkage between economics and demography; Sources of demographic data – Population census, Vital registration system, Sample Registration System, Sample surveys- features, advantages and problems, Population register.                      Pre-Malthusian view, Malthusian theory of population, Optimum theory of population, Demographic transition theory, Marx’s theory.</p>	15	CO1
Module II	<p><b>Components of Population change</b>                      Fertility: Basic concepts of fertility; Fertility Theories: Social Capillarity theory, Theory of change and response, Theory of diffusion; Economic Theories of fertility - Cost-benefit theory, Theory of micro-consumption, Easterlin Hypothesis; Biological theories of Spencer, Sadler and Doubleday, Basic</p>	15	CO2

	measures of fertility: Crude birth rate, General fertility rate, Age-specific fertility rate, Total fertility rate. Mortality – Basic concepts, Mortality variables, Basic measures of mortality: Crude death rate, Infant mortality rate, Maternal mortality rate; Health outcomes and their relationship with economic performance. Migration – Basic concepts, Theories of migration: The Push-pull hypothesis, Lee’s theory, Petersen’s typology, Ravenstein’s laws of migration, Stouffer’s theory of intervening opportunities, Zipf’s Gravity Model, Harris-Todaro model, Sjaastad’s human capital model of migration.		
Module III	<b>Population Growth and projection</b> Population, Development and environment linkages; Population growth rates – inter-censual, arithmetic, geometric and exponential growth rates; Concepts of population projections; Population estimates, forecasts and projection; Uses of population projection, Economic importance of projection; methods of population projections; Methods of rural-urban and sub-national population projections; ; Population policy-meaning and importance.	15	CO3
Module IV	<b>Population composition and Distribution</b> Population Composition and Distribution: Age structure, Factors affecting age structure, Aging of population; Measures of age structure; Sex structure - Factors affecting sex structure, Measures of sex structure, Population pyramid; Economic characteristics-LFPRs; Marital and educational characteristics; Meaning of population distribution; Population density, Factors affecting population density.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	2	1	1	2	1	1	1	-	2	2	-	3
CO2	2	3	2	1	1	2	1	1	1	-	2	2	-	3
CO3	2	3	2	1	2	2	1	1	1	-	2	2	-	3
CO4	2	3	2	1	2	1	1	1	1	-	2	2	-	3
Average	2.0	3.0	2.0	1.0	1.5	1.75	1	1.0	1.0	-	2.0	2.0	-	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- Thompson, W.S. and Lewis, D.T.: *Population Problems*, McGraw Hill Book, New York  
Thomlinson, R.: *Population Dynamics*, Random House, New York  
Srinivasan, K. : *Basic Demographic Techniques and Application*, Sage Publications, New Delhi, 1992  
Bhende, A.A. and Kanitkar, T.: *Principles of Population Studies*, Himalaya Publishing House, Bombay, 2003  
Sinha, V.C. and Zacharia, E.: *Elements of Demography*, Allied Publishers Private Limited, New Delhi 6. Shryock, H.S. et. al : *Methods and Materials of Demography*, Academic Press, New York  
Hinde, Andrew: *Demographic Methods*, Routledge  
Preston, S. H., Heuvenile, P. & Guillot, M.: *Demography*, Wiley

Cox, P. R.: *Demography*, Cambridge University Press

Jay Weinstein & V. K. Pillai: *Demography – The Science of Population*, Pearson

Deepak K Mishra (Ed) *Internal Migration in Contemporary India*, Sage Publications, New Delhi, 2016

## ECO-101-CW-61050: Advanced Mathematical Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** *This course has been designed to impart the students about advanced tools of mathematics along with its application in economic analysis.*

### Course Outcomes:

CO1: The learners will learn about production function.

CO2: They will also learn about the application of matrix in economic model and input-output analysis.

CO3: The learners will gain knowledge about the game theory

CO4: They will also acquire knowledge about the differential equation and difference equation.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Production Function and its Application</b> Homogenous and non-homogenous production functions; production function and Euler's theorem; Cobb-Douglas production function and its properties; CES production function and its properties; Cobb-Douglas production function as a special case of CES production function; numerical application	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>Application of Matrix Algebra</b> Review of matrix inversion and crammer's rule; partial equilibrium market model; simple national income model; input-output analysis- structure of input-output table, static open input-output model, Hawkins-Simon condition	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Game Theory</b> Types- two-person zero-sum game, non-zero-sum game, variable sum game, constant-sum game, cooperative and non-cooperative game; saddle point, value of the game; solution of a game with saddle point-pure strategy(maximin and minimax principle); rules of dominance; solution of a game without saddle point- mixed strategy; Nash equilibrium; Prisoner's dilemma	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Differential Equation and Difference Equation</b> Deferential equation-meaning, types, solution of first order differential equation and application to Harrod-Domar growth	<b>15</b>	<b>CO4</b>



	model; difference equation- meaning, types and solution of first order differential equation and application to Cobweb model		
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### Mapping of POs/ PSOs with COs

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3	PSO 4
<b>CO1</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO2</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO3</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>CO4</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>Average</b>	1.0	2.0	2.5	-	1.0	1.5	1.0	2	3	-	1	1	3	3

### Recommended Readings:

- Allen, R.G.D., *Mathematical Analysis for Economics*, Macmillan, 1976.
- Baruah, Srinath, *Basic Mathematics and its Application in Economics*, Macmillan India Limited, Calcutta and Chennai, 2001
- Bose, D, *An Introduction to Mathematical Economics*, Himalaya Publishing House, Mumbai, 2007
- Baumol, W. J., *Economic Theory and Operations Analysis*, PHI Learning Private Limited, New Delhi, 2010
- Chiang, A.C., *Fundamental Methods of Mathematical Economics*, McGraw Hill, Kogakusha, New Delhi, 1974
- Chiang, A. C and Kevin Wainwright, *Fundamental Methods of Mathematical Economics*, McGraw Hill Education (India) Private Limited, Chennai, 2018
- Dowling, Edward T, *Introduction to Mathematical Economics*, McGraw-Hill Companies, New York, Chicago, San Francisco, Lisbon, London, Madrid, Mexico City, Milan, New Delhi, San Juan, Seoul, Singapore, Sydney, Toronto, 2012
- Gibbons, Robert, *Game Theory for Applied Economics*, Princeton University Press. 1992
- Mehta, B. C. and G. M. K. Madnani, *Mathematics for Economists*, Sultan Chand & Sons, New Delhi, 2009
- 1.
- Sharma, J. K., *Operations research Theory and Application*, Trinity, Delhi, 2016
- Taha, A. Hamdy, *Operations Research: An Introduction*, Prentice Hall of India Private Limited, New Delhi, 2002
- Yamane, Taro, *Mathematics for Economists: An Elementary Survey*, PHI Private Limited, Delhi, 2013

ECO-101- CW-61060: Contemporary Issues in Indian Economy

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:**

*To acquaint the students with the conditions of the Indian economy and its institutional structure – in many instances the students find economic dealing with the problems of the developed countries in depth and only touching tangentially the ‘real’ problems of the developing countries, including India. This syllabus tries to remove this anomaly. The ‘real’ problem in a developing country, like India is a weak property rights regime and also weak contract enforcement mechanisms. All these are included so as to make the scholars aware of what are the ‘real’ constraints of Indian economy.*

**Course Outcome:**

CO1. Students will know about contemporary Issues in Banking and Finance in India.

CO2. Students will be informed about issues in social sector of India.

CO3. Students will be able to understand the impact of pandemic on Indian economy.

CO4. Students will also be understand different issues of Arunachal economy.

Module	Content	Contact Hours	CO
<b>Module I</b>	<b>Contemporary Issues in Banking, Finance and Corporate Restructuring</b> Banking reform: Nationalization, Non-performing assets and privatization of banks; GST and demonetization	15	CO1
<b>Module II</b>	<b>Contemporary Issues in Social Sector</b> Rural Livelihood Mission, MGNREGA, NRHM, SSA, Social Security	15	CO2
<b>Module III</b>	<b>Pandemic and Indian Economy</b> Impact of the Covid19 pandemic on the Indian Economy. Impact on Employment and Labour Market, Labour migration	15	CO3
<b>Module IV</b>	<b>Policy Issues and the Arunachal Economy</b> Poverty alleviation programmes – Employment generation – Inclusive growth – Evaluation of Five-year plans with special emphasis on the 11 <sup>th</sup> and 12 <sup>th</sup> five-year plans. Problems of Arunachal Economy: Structure of Arunachal economy, its evolution, characteristics of traditional	15	CO4

	economies, institutional structure, technology, mode of surplus disposal, Growth pattern and its sources.		
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	3	2	2	1	-	1	2	-	2	2	1	2
CO2	2	3	3	2	2	1	-	2	2	-	1	2	1	2
CO3	2	3	3	2	2	1	-	2	2	-	2	2	1	2
CO4	2	3	3	2	2	1	-	2	2	-	1	2	1	2
Average	2.0	3.0	3.0	2.0	2.0	1.0	-	2.0	2.0	-	1.5	2.0	1.0	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Ahluwalia, I J and IMD Little (eds.) *India's Economic Reforms and development* (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi, 1999.

Bardhan, P. (1991) *The Political Economy of development in India*, Oxford University Press, New Delhi.

Dev, S. M., & Sengupta, R. (2020). *Covid-19: Impact on the Indian economy*. Indira Gandhi Institute of Development Research, Mumbai, April.

Government of India, *Economic Survey (annual)*, Ministry of Finance, New Delhi.

Government of Arunachal Pradesh (2005) *Arunachal Pradesh Human Development Report*, Itanagar.

Government of India, (2009) *Arunachal Pradesh Development Report 2008*, Planning Commission, Academic Foundation, New Delhi.

Mishra K Deepak (2016) (Ed) *Internal Migration in Contemporary India*, Sage Publications, New Delhi.

Mishra K Deepak and Vandana Upadhyay (2017) (Ed) *Rethinking Economic Development in North East India: The Emerging Dynamics*, Rutledge, London/New Delhi.

Mishra K Deepak and Pradeep Nayak (2020) (Ed) *Land and Livelihoods in Neoliberal India*, Springer, Palgrave Macmillan, Singapore.

Mishra, K. Deepak et. al (2020) *Surviving the Pandemic: Ground Reports From India's Villages*, Bhubaneswar: Development Research Institute.

Mitra, A., *Internal Migration and Economic Development in the Hills*, Omsons Publications, New Delhi, 1997.

Jalan, B. (1992) *The Indian Economy – Problems and Prospects*, Vikash, New Delhi.

Kapila, Uma (ed.) *India's Economic Reforms*, Academic Foundation, New Delhi.

Kapoor, R. (2020). COVID-19 and the State of India's Labour Market. *ICRIER Policy Series*, 18.

Khera, Reetika (2011) *The Battle for Employment Guarantee*, Delhi: Oxford University Press  
Radhakrishnan, R (ed) *India Development Report – 2004-05 and latest issues*, Oxford University Press, New Delhi.

*Specific Papers Published in EPW and other Research Journals.*

Roy, N. C. (1996) 'Growth and Structural Changes in the Economy of Arunachal Pradesh', *Arunachal University Research Journal*, Vol.1, No.1, pp. 48-56

Roy, N.C. and P. K. Kuri (2001) *Land Reforms in Arunachal Pradesh*, Classical Publishing House, Delhi.

Sahoo, P., & Ashwani. (2020). COVID-19 and Indian economy: Impact on growth, manufacturing, trade and MSME sector. *Global Business Review*, Vol. 21(5), 1159-1183.

## ECO -101-CW-61070: Labour Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objectives:

*This course will serve to introduce the various concepts of Labour economics to the students. The interrelationship between labour and economic development will be examined in detail. The course will also review the issues related to employment, wage determination, labour mobility and the problems of the Indian Labour market.*

### Course Outcomes:

**CO1.** The course helps the learner to reflect upon the linkages between labour and economics.

**CO2.** They will also learn about the problems of labour related to employment and unemployment.

**CO3.** The learner will acquire knowledge about the various theories of labour and issues related to wage determination and labour productivity.

**CO4.** The learners will acquire knowledge about informal sector and labourers engaged in the informal sector.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>Introduction to labour Economics</b> Concept, Nature and scope of labour economics; Labour market- concept, Labour supply, Labour demand, Equilibrium in the labour market; An overview of major theories of labour market mismatch; Imperfections in the labour market- Job search and Job matching, Imperfect information, labour market institutions of minimum wage and trade unions; segmentation of labour market	<b>10</b>	<b>CO1</b>
<b>Module II</b>	<b>Employment and Unemployment</b> Concepts of labour force participation and underutilization; Employment/ Unemployment definitions applied in international and national context; Informal employment; Decent work- Concept, Measurement and policy response; Conditions of work; Theories of unemployment; Relation between employment and manpower planning technique; Manpower techniques.	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Wage determination</b> Theories of wage- Classical, neo classical and modern; Efficiency wage models; Wage determination in organized and unorganized sector; Human capital theory of wage; Wage differentials; Labour market discrimination; relation between wage and employment; Labour productivity concept-	<b>17</b>	<b>CO3</b>

	Measurement, determinants and measures to increase labour productivity		
<b>Module IV</b>	<b>The Informal Enterprises and Labour</b>  Unorganised or informal sector: Unorganised enterprises and informal workers; Rural and urban informal sector; Theories of unorganised sector: Boeke, Lewis and Todaro; Explanation for the growth of unorganised sector: Growth led and distress driven development in informal sector; Interlinkages between formal and informal sector; Trends and magnitude of informal sector in India; Women in informal sector.	<b>18</b>	<b>CO4</b>

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	2	1	1	2	1	1	1	-	2	2	-	3
CO2	2	3	2	1	1	2	1	1	1	-	2	2	-	3
CO3	2	3	2	1	2	2	1	1	1	-	2	2	-	3
CO4	2	3	2	1	2	1	1	1	1	-	2	2	-	3
Average	2.0	3.0	2.0	1.0	1.5	1.75	1	1.0	1.0	-	2.0	2.0	-	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

#### Recommended Readings:

Michael Hopkins (2002): 'Labour market planning revisited', Palgrave Macmillan  
Ashenfelter, Orley and Richard Layard, The Handbook of labour Economics. Vol.1 and 2. New York: North- Holland, 1986; Vol.3A, 3 B and 3C, 1999

George J. Borjas (2000): 'Labour Economics' McGrawhill, New York  
Mcconnel and Stanley Brue (2002): contemporary labour Economics, McGrawhill, New York

Banerjee, A. V. and E. Duflo (2011): *Poor Economics – A Radical Rethinking of the Way to Fight Global Poverty*, Random House India, Noida.

Bhalla, S. (2009): *Definition and statistical Issues Relating to Workers in Informal Employment*, National Commission for Enterprises in the Unorganised Sector, Government of India, New Delhi.

Bhavani, T. A. and N. R. Bhanumurthy (2012): *Financial Access in Post- reform India*, Oxford University Press, New Delhi.

Boeke, J.H. (1953): *Economics and Economic Policy of Dual Societies*, Institute of Pacific Relations, New York.

Farazi, S. (2014): *Informal Firms and Financial Inclusion: Status and Determinants*, Policy Research Working Paper 6778, (The World Bank, Development Research Group, Finance and Private Sector Development Team, February).

Ghose, A. (2016): *Informality and Development*, Presidential Address delivered at 58<sup>th</sup> Annual Conference of Indian Society of Labour Economics, IIT Guwahati, 24<sup>th</sup> November.

Hansenne, M. (1991): *The Dilemma of the Informal Sector- Report of Director General (Part1)*, International Labour Conference 78<sup>th</sup> Session, Geneva, 28 January.

Harris, J. R. and M. P. Todaro, (1970): 'Migration, Unemployment and Development: A two Sector Analysis', *American Economic Review*, Vol. 60, No.1, Pp:126- 142.

- Lewis, W. A. (1954): *Economic Development with unlimited Supply of Labour*, The Manchester School.
- NCEUS (2007): *Report on Financing of Enterprises in the Unorganised Sector & Creation of a National Fund for the Unorganised Sector (NAFUS)*, National Commission for Enterprises in the Unorganised Sector, New Delhi, November.
- NCEUS (2008): *Contribution of the Unorganised Sector to GDP Report of the Sub-Committee of a NCEUS Task Force*, National Commission for Enterprises in the Unorganised Sector, New Delhi, June.
- NSSO (2001): *Informal Sector in India 1999-2000, Salient features*, NSS 55<sup>th</sup> round (July 1999-June 2000), Ministry of statistics and Programme Implementation, Government of India.
- NSSO (2003): *Unorganised Service Sector in India (2001- 02): Characteristics of Enterprises*, Report No. 483, NSS 57<sup>th</sup> Round (Ministry of statistics and Programme Implementation, Government of India).
- NSSO (2008): *Unorganised Manufacturing Sector in India: Employment, Assets and Borrowings*, Report No.525, NSS 62<sup>nd</sup> Round, 2005-2006, Ministry of statistics and Programme Implementation, Government of India.
- NSSO (2009): *Service Sector in India (2006-07): Operational Characteristics of Enterprises*, Report No.528, NSS 63<sup>rd</sup> Round, Ministry of statistics and Programme Implementation, Government of India.
- NSSO (2013): *Economic Characteristics of Unincorporated Non- Agricultural Enterprises (Excluding construction) in India, 2010-11*, Report No. 549, NSS 67<sup>th</sup> Round, Ministry of statistics and Programme Implementation, Government of India.
- Ray, S., S. K. Mahapatra and S. Nath (2019): 'Over-indebtedness and Its Drivers among Microfinance Borrowers in India', *Economic and Political Weekly*, Vol. 54, No.7, pp:47-53.
- Shumba, H. (2016). *Financial Inclusion of the Informal Sector as an enabler to Economic Growth in Zimbabwe*

## ECO- 101-CW-61080: Economics and Public Policy

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objectives:

This course is designed to familiarize students with the basic concepts, theories, models and techniques of public policy analysis

Course Outcome:

CO1. The students will be familiarized with historical and Structural Context of Public Policy Making

CO2. They will be able to identify and explain the key determinants of policy making

CO3. The students will be familiarized with techniques and models of policy implementations

CO4. Students can evaluate the potential outcomes and effects of public policies

Modules	Content	Contact Hours	COs
Module I	Historical and Structural Context of Public Policy Making and Emerging Problems: Introduction to Public policy, Attributes, Definitions and Relevance of public policy, policy inputs, outputs and outcomes, typologies, policy circle, Bardach's Eightfold path to problem solving and policy analysis: constraints in policy making. Identification of issues, framing of problems, problem of definition and assembling of evidence, writing a problem statement, policy problem as market and governmental failure, distributional and other goals.	15	CO1
Module II	Agenda setting and Policy Formulation Brewer's initiation, identification of the problem context, communication of problem, focusing events, The policy agenda: Public agenda vs institutional agenda, Kingdon's Window of Opportunity model; Policy communities, Pluralism vs elitism, Rational Model. Determination of goals and objectives, Constructing alternatives and selecting Criteria. Analysis and Authorization. Prediction of output, outcomes and consequences. Criteria Alternative Matrix and other models. Selection of policy choice and comforting trade-offs. Use of design thinking in evaluation of policy alternatives. Insights from behavioural economics.	15	CO2
Module III	Techniques and Models of Policy Implementations: Top- down approach to implementation. The implementation game. Bottom up approach. Street level bureaucrats, challenges involved, conditions for successful implementations. Role of	15	



	various agencies and institutions in policy implementation. Incremental model. Public Sector strategic planning. Dimensions of policy implementations.		
Module IV	Policy Review and Evaluation Policy impacts, Evaluation and change. Criteria for evaluation. Types and methods of evaluation, Cost benefit analysis, Management by objectives (MBO), Operations Research, Programme evaluation and review technique (PERT) and critical path method (CPM).	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	1	1	-	-	2	1	1	2	2	-	3
CO2	2	1	3	1	3	2	1	2	1	-	2	2	1	3
CO3	2	1	3	1	3	2	1	2	1	-	2	2	1	3
CO4	1	2	3	1	2	1	2	2	1	-	2	2	-	2
Average	1.75	1.5	2.75	1.0	2.25	1.25	1.0	2.0	1.0	0.25	2.0	2.0	0.5	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- Weimer, D. L., & Vining, A. R. (2011). Policy analysis: Concepts and practice. Boston: Longman.
- Mintrom, Michael. (2007). Public Policy: The Competitive Framework - by Ewen J. Michael. Australian Journal of Public Administration - AUST J PUBL ADM. 66. 387-388. 10.1111/j.1467-8500.2007.00550\_7.x.j.
- Bardach, Eugene (2011). A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving. CQ Press College.
- Birkland, Thomas A. (2011). Policy Process: Theories, Concepts, and Models of Policy Making. Routledge.
- Bhuyan, Jorgensen and Sharma (2010), 'Taking the Pulse of Policy: The Policy Implementation Assessment Tool', U.S. Agency for International Development (USAID)

ECO-101-CW-61090: Health Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:** This course provides the theoretical foundations and economic evaluation of Health Economics. The main focus is the understanding of health issues and policies in a developmental perspective relating specifically to the financing, delivery, and efficiency of health systems. The course also attempts to evaluate policies in the context of market versus State provision of health care.

**Course Outcomes:**

CO1. Having studied this course student will be able to learn about different concepts of health economics such as demand for and supply of health care services.

CO2. Having studied this course students will be able to understand about the different models of health care financing.

CO3. Having studied this course student will be able to understand about public health economics.

CO4. The last module will try to explain about the health care approaches in India.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>COs</b>
<b>Module I</b>	Demand and Supply of Health Care Services Distinction between health and health care, Health as an Economic Good, Arrow's Perspective on Healthcare. Demand for Health Care: Utility and Health, Demand for Health care, Measuring price sensitivity with elasticities, The Grossman Model; The Grossman Model and Health Disparities Supply in Health care: Physicians as Health care Providers, Supply Induced Demand, Hospitals as Health care Providers, production and Cost of Healthcare, Profit maximization models in health care.	15	CO1
<b>Module II</b>	<b>Financing Health care and Insurance in Health Care</b>  The rationale of government funding and regulation of health care; Tax and Social Health Insurance, user charges and community financing schemes; issues of affordability and accessibility; Delivery of health care Private financing mechanisms and out of pocket expenditure on health, Uncertainty and Risk - Health Insurance, Patient Payments,	15	CO2

	Reimbursements, Information Economics in Health: Moral Hazard and Adverse Selection		
<b>Module III</b>	<b>Public Health Economics</b> Conceptual Foundations for health utility measurement-Preference based measures of health-Contingent valuation in health- Discrete choice experiments in health economics- stages and Validity of discrete choice variables. Economic evaluation in health Care-Cost-effectiveness analysis- Decision rules in economic evaluation.	15	CO3
<b>Module IV</b>	<b>Health Approaches in India</b> Economic dimensions of health system in India-Health Indicators and outcomes - Nutritional concerns –Role of government in health care-Equity issues in health and health care systems - Social and gender inequalities - Social security measures-Health care in India- Health and population policies-Health sector reforms in India.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	1	2	1	1	3	1	-	3	2	1	3
CO2	2	3	3	1	2	1	-	1	1	-	2	2	1	3
CO3	1	3	3	1	1	1	-	2	1	-	2	2	-	2
CO4	2	2	2	1	2	2	-	1	1	-	2	2	-	2
Average	2.0	2.5	2.75	1.0	1.75	1.25	0.25	1.75	1.0	-	2.25	2.0	0.50	2.5

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Reading:

- Bhattacharya, J., Hyde, T., & Tu, P. (2014). Health Economics. Palgrave Macmillan.
- Coelli, T. J., Rao, D. S. P., O'Donnell, C. J., & Battese, G. E. (2005). An introduction to efficiency and productivity analysis. Springer science & business media.
- Morris, S., Devlin, N., Parkin, D., & Spencer, A. (2012). Economic Analysis in Health Care (2nd ed.). Wiley.
- Zweifel, P., Breyer, F., & Kifmann, M. (2009). Health Economics (2nd ed.). Springer.
- Andrew M. Jones (ed)(2006): The Elgar Companion to Health Economics, Edward Elgar, USA.(Module 3 and 4)
- Glied S. and Smith P.C.(ed) (2011) : The Oxford Handbook of Health Economics, New York.(Module 3and 4)
- Henderson, J.W. (2001): Health Economics and Policy, South –Western, Thomson Learning. Chapters: 2 and 3 (Module 2)
- Mcpake, B., L. Kumanayake and C. Normand (2002): Health Economics: An International Perspective, Routledge. ( Module1)
- Musgrove, P. (2004): Health Economics in Development, The World bank. Chapters: 2,3,4,9 and 10 (Modules 1 and 2)
- Panchamukhi, P. R. (2002): Economics of Health: An Introductory Review. ICSSR (Modules 1 and 2)
- World Health Organization(2011):A System of Health Accounts, WHO

## ECO -101-CW- 61100: Economics of Social Sector

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Course Objectives:

*The objective of the paper is to acquaint the learners with the history and nature of the social indicators and their importance in social science research. It will also examine the theoretical perspectives and limitations of the indicators on health and education.*

### Course Outcome:

- (1) The learners will acquire knowledge about the basic concepts of health economics and development.*
- (2) They will also learn about the various determinants and indicators of health and health care market.*
- (3) They will acquire knowledge about the economics of education in terms of human capital, demand and cost for education*
- (4) They will have a better understanding about the issues related to the financing of education.*

Module	Content	Contact Hours	COs
Module I	<b>Health Economics and Development</b> Rationale and Scope of Health Economics; Investment in Health; Health outcomes and their relationship with macroeconomic performance; Health and Productivity Relation: Empirical Evidence; Economics of Nutrition.	15	CO1
Module II	<b>Determinants and Indicators of Health and Health care Market</b> Determinants of Health Status; Indicators of Health Status: Input and Output Indicators; Measures of Health Status: Disease Burden - DALY, QALY; Consequences of Gender Bias in Health; Concept of Missing Women; Linkages of Female Education with mortality and morbidity. Health outcomes; health care delivery systems and health financing: Public-Private Partnership in Providing health care	15	CO2

	services: Equity and Efficiency debate; Evolution of health care policies in India. Cross Country Comparisons in terms of health care investment and health outcomes Health Care Market: Demand for Health care – Grossman model of health demand; Supply of Health Care; Economics of Health Insurance: Market failure in health insurance and sources; Market of Pharmaceuticals		
Module III	<b>Introduction to Economics of Education</b> Concept and scope of Economics of Education; Education as consumption and investment goods; Role of education in Economic development, Human Capital - Human Capital Vs Physical Capital, Demand and Supply of Education; Cost of education - private costs and social cost, direct and indirect cost; Benefits of education-Direct and indirect benefits, private and social benefits; inequality in education; the Relationship between Employment Opportunities and Educational Demand.	15	CO3
Module IV	<b>Financing of Education</b> Private versus public provision of education, Empirical evidence on the determinants of public versus private funding, Interactions between public and private sector, Centralization versus decentralization of educational finance, Fiscal federalism in education finance.	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	1	3	3	1	1	1	-	2	1	-	2	2	-	2
CO2	2	2	2	1	2	2	-	1	1	-	2	2	-	2
CO3	2	3	3	1	1	2	1	3	2	-	2	2	1	3
CO4	2	2	1	1	1	1	1	1	1	-	1	1	-	1
Average	1.75	2.5	2.25	1.0	1.25	1.5	0.25	1.75	1.25	-	1.75	1.75	0.25	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- William, Jack (1999): Principles of Health Economics for Developing Countries, World Bank Publications.
- World Development Report (1993): Investing in Health, The World Bank.
- Ronald G., Ehrenberg and Robert S., Smith (2005) Modern Labour Economics: Theory and Public Policy, Addison Wesley
- Human Development Reports, Technical Notes: UNDP-various issues
- Michael P. Todaro & Stephen C. Smith (2005): Economic Development, Pearson Education
- Grossman, Michale (1999): The Human Capital Model of the Demand for Health, working paper, National Bureau of Economics Research, Cambridge
- Gerald M. Meier & James E. Rauch (2005): Leading Issues in Economic Development, Oxford University Press.
- George Psacharopoulos (1987): Economics of Education, Pergaman Press,
- Blaug, M. (1972): Introduction to Economics of Education, Penguin, London.
- Checchi, D, The Economics of Education, Cambridge University Press

Johnes, G. and Johnes, J., (Ed.) International Handbook on the Economics of Education, Edward Elgar Publishing Ltd.

K.Venkatasubramanian,(1998) Education and Economic Development of TN.

G.S.Parnes, Planning Education for Economic Social Development.

Cohn,(2005) Economics of Education

Tilak( 2006), Economics of Inequality in Education

Sudha V.Rao (2003), Education and Rural Development

Nalla Gounden A.M. (1998), Education and Economic Development

Cohen, E. and T. Gaske (1989): Economics of Education, Pergamon Press, London

Vaizoy (1962): Economics of Education, Faber and Faber, London

Mc Mohan, W.W. (1999): Education and Development: Measuring the Social Benefits, OUP, Oxford.

Woodhall, M. (1992): Cost Benefit Analysis in Educational Planning, UNESCO, Paris

George Psacharopoulos(1987): Economics of Education, Pergaman Press,

Blaug, M. (1972): Introduction to Economics of Education, Penguin, London.

Checchi, D, The Economics of Education, Cambridge University Press

Johnes, G. and Johnes, J., (Ed.) International Handbook on the Economics of Education, Edward Elgar Publishing Ltd.

K. Venkatasubramanian,(1998) Education and Economic Development of TN.

G.S.Parnes, Planning Education for Economic Social Development.

Cohn,(2005) Economics of Education

Tilak( 2006), Economics of Inequality in Education

Sudha V.Rao (2003), Education and Rural Development

Nalla Gounden A.M. (1998), Education and Economic Development

Cohen, E. and T. Gaske (1989): Economics of Education, Pergamon Press, London

Vaizoy (1962): Economics of Education, Faber and Faber, London

Mc Mohan, W.W. (1999): Education and Development: Measuring the Social Benefits, OUP, Oxford.

**ECO-101-CW-62010: THE ECONOMY OF NORTH EAST INDIA**

<p><b>Total Credit: 4 (4L)</b>  <b>Minimum Contact Hours: 60</b>  <b>Internal Assessment: 20 Marks</b>  <b>End Semester Exam: 80 Marks</b>  <b>Full Marks: 100</b></p>
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**Learning Objectives:**

*The North-eastern economy has a number of issues which carry elements of regional specificity. So, these problems demand a special attention. This paper treats the specificity of the region rigorously and tries to identify the solution of the problems infesting the region.*

**Course Outcome:**

*CO1. The learners will acquire knowledge about the basic structure of the North East Economy*

*CO2. They will also learn about the issues related to population growth and urbanisation in the north east region of India.*

*CO3. They will acquire knowledge about the unique agricultural practices and challenges of industrialisation in North east India.*

*CO4. They will have a better understanding about the fiscal and development issues and the acute challenges faced in infrastructure development.*

*CO5. This paper will bring the students to the midst of the problems of the Northern economy. They avidly study this paper and try to find solution of regional problems.*

Module	Content	Contact Hours	COs
Module I	<b>Structure of North East Economy</b> North East economy: An overview – Basic Features of North East economy - Relative performance of the North East economy in the country - Economic performance of the region – Level and growth of NSDP and Per Capita NSDP – Changing sectoral composition of state income and sectoral contribution to the growth of income with respect to Arunachal economy - Natural Resource Base – Land, mineral, water and forests – Status of human development in N.E. India.	10	CO1
Module II	<b>Population</b> Population: Trends and features, causes for its rapid growth, population growth and economic development - Urbanization: Trends and features, causes for rapid growth and consequences	15	CO2

	- Work force structure and its changes, participation of female labour force, unemployment situation in North East India.		
Module III	<b>Agriculture and Industries</b> Agricultural practices in the region – Permanent cultivation, shifting cultivation and its effects – Jhum cultivation and the problem of induction of new technology - Land tenure and problems of agricultural credit - Land use pattern and cropping pattern in North East India and Arunachal Pradesh - Agricultural productivity – Causes of low productivity - Status of industry in North East - Factors inhibiting the growth of industries.	20	CO3
Module IV	<b>Infrastructure, Fiscal and Developmental Issues</b> Infrastructure development: Power, transport, communication, market and banking: NEDFi and SIDBI– State of public finance and fiscal issues in North Eastern economy with special reference to Arunachal Pradesh – Opportunities and Challenges of North East economy in the background of economic liberalization of India – Opening of NE economy and Look East/ Act East policy of the government of India.	15	CO4, CO5

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	3	2	2	1	-	1	2	-	2	2	1	2
CO2	2	3	3	2	2	1	-	2	2	-	1	2	1	2
CO3	2	3	3	2	2	1	-	2	2	-	2	2	1	2
CO4	2	3	3	2	2	1	-	2	2	-	1	2	1	2
Average	2.0	3.0	3.0	2.0	2.0	1.0	-	2.0	2.0	-	1.5	2.0	1.0	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- NEDFi Data Bank, *Quarterly Journal of Northeastern States*, Different Years.
- Alam, K (Ed), *Agricultural Development in Northeast India*, Deep and Deep Publications, New Delhi, 1993.
- Banerjee, Amalesh and Biman Kar (Ed), *Economic Planning and Development of Northeastern States*, Kanishka Publishers and Distributors, New Delhi, 1999.
- Behera, M.C. and N.C. Roy (Eds), *Trends in Agrarian Structure in the Hills of Northeast India*, Commonwealth Publishers, New Delhi, 1997.
- Das, Gurudas, *Tribes of Arunachal Pradesh in Transition*, Vikash Publishing House, New Delhi, 1995.
- Ganguly, J.B., (Ed), *Urbanization and Development in Northeast India*, Deep and Deep Publications, New Delhi, 1995.
- Majumdar, D.N. (Ed), *Shifting Cultivation in Northeast India*, Omsons Publications, New Delhi, 1990.
- Mitra, A., *Internal Migration and Economic Development in the Hills*, Omsons Publications, New Delhi, 1997.
- Yogi, A.K., *Development of the Northeast Region--- Problems and Prospects*, Spectrum Publications, New Delhi.
- Behera, M.C. (Ed), *Agricultural Modernisation in Eastern Himalayas*, Commonwealth Publishers, New Delhi, 1998.



Planning Commission, Government of India, *National Human Development Report*, 2001.  
*Assam Economic Journal* (different issues), Dibrugarh University.  
Baruah, Alokesh (Ed), *India's North-East Developmental Issues in a Historical Perspective*, Manohar Publishers, New Delhi, 2005.  
Government of Arunachal Pradesh, *Human Development Report of Arunachal Pradesh*, 2005.  
Government of India, Planning Commission, *State Development Report of Arunachal Pradesh*, 2009.  
Deepak K Mishra and Vandana Upadhyay (Ed) *Rethinking Economic Development in North East India: The Emerging Dynamics*, Routledge, London/New Delhi, 2017  
Sumi Krishna (Ed) *Routledge Readings on Security and Governance in Northeastern India: Resource Conflicts, Militarisation and Development Challenges*, Routledge, London and New York, 2023

## ECO-101-CC-62020: Rural Development

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives: The students will learn about different aspects of rural development.**

Course Outcome: Having studied this paper student will learn about:

CO1. Changing concepts and connotations of rural development.

CO2. Students will learn about different approaches to rural development in India.

CO3. Students will learn about the impact of different institutions on rural development

CO4. Students will learn about the community based approaches to rural development.

Modules	Content	Contact Hours	COs
<b>Module I</b>	<p><b>Rural Development - Background &amp; Concept</b>            Concepts and Connotations of Rural Development, Definition and Scope of Rural Development, Causes of Rural Backwardness; Need for Rural Development, Historical Evolution of the Concept of Rural Development in Indian Context.</p> <p>Changing focus of Rural Development Policies over the decades – Political Economy of Rural Poverty Eradication</p>	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<p><b>Rural Development Policies in India</b>            Approaches to Rural Development in India: Gandhian Model of Rural Development, Broad Front Approach, Sectoral Approach, Participatory approach, Area Approach, Target Group Approach and Integrated Approach, Decentralized Planning, Panchayat Raj Institutions: Evolution, Structure &amp; Functions, 73rd Amendment, Role of PRIs in Rural Development.</p> <p>Contours &amp; Success of selected Rural Development Programs in India - IRDP, SGSY, EGS, MGNREGA, NRHM, ICDS, PURA, DIRECT BENEFIT TRANSFER, etc.</p>	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<p><b>Institutions &amp; Rural Development</b>            Role of Co-operative Institutions: Concept and Principles, Types and Working of Rural Credit Cooperatives, Marketing Cooperatives, Dairy Cooperatives, Sugar Cooperatives, Weavers' Cooperatives.</p>	<b>15</b>	<b>CO3</b>

	Infrastructure & Rural Development – Role of infrastructure in augmenting Income; Infrastructure, Rural Poverty & Inequality; Infrastructure expansion and Agriculture – Ellet Model; Indian Scenario		
<b>Module IV</b>	<b>Community Based Interventions for Rural Development</b> Micro Finance & Sustainable Community Banking - Empowerment of Poor and Marginalized; Self Help Group promotion: Concepts, Elements, Stages, Savings Operations of SHGs, Crdit Operations of SHGs, Problems faced by Intervening Agencies  Experiences in context of India: Integrated Watershed Management Programme, Ralegaon Shiddhi Model, Forest Committees, Role of CBOs in Sustainable Rural Development	<b>15</b>	<b>CO4</b>

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	1	2	2	2	2	1	-	3	2	-	2	2	-	2
CO2	2	2	2	2	1	-	-	2	2	-	2	2	-	2
CO3	1	2	2	2	2	-	-	3	1	-	2	2	-	2
CO4	2	2	2	2	1	1	-	2	1	-	1	1	-	2
Average	1.5	2.0	2.0	2.0	1.5	0.5	-	2.5	1.5	-	1.75	1.75	-	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- Battacharya S.N. Rural Industrialization in India  
 Bepion Behari Rural Industrialization in India  
 Rao R.V. Rural Industrialization in India  
 Bagli V Khadi and Village Industries in the Indian Economy  
 Das Kumar B: Rural Development through Decentralization  
 Jain S.C. : Rural Development  
 James Copestske NGO Sponsering of Group Lending in Rural India: Theory and a Case Study  
 Khanna B.S.: Rural Development in South Asia:Policies, Programmes and Orgnizations  
 Kripalani J.B. Gandhian Thought  
 Vasant Desai Organization and Management of Small Scale Industries  
 Misra& Sharma: Problems and Prospects of Rural Development  
 N.I.R.D. Rural Development in India Some Facets  
 Nanavati & Anjalialia The Indian Rural Problems  
 Raja Sekhar D Savings and Credit Systems of the Poor; Some NGO Experiences, NOVIB and HIVOS  
 Robert Chambers: Rural Development Putting the Last First  
 Sharma &Malhotra Integrated Rural Development  
 Singh Katar: Rural Development: Principles, Policies and Management.  
*Socio-Economic Surveys of Three Villages in Andhra Pradesh: A Study of Agrarian Relations* Edited by V. K. Ramachandran, Vikas Rawal and Madhura Swaminathan New Delhi: Tulika Books. 2010. ISBN  
 Sreenivas M. N. Social Change in Modern India  
 Sreenivas M. N. & S. Seshaiahs Dimensions of Social Change in India  
 Susan Johnson and Ben Rogally : Micro Finance  
 V. S. Parthasarathi  
 Vasant Desai Problems and Prospects of Small Scale Industries in India

Vasant Desai: A Study of Rural Economy  
 Venkata Reddy K: Rural Development In India Poverty and Development  
 Wilbert E. Moore Social Change  
 Yasant Desai A Study of Rural Economy  
 Yunus M: Rural Agricultural Credit Operations in Bangladesh  
 van der Ploeg, J et al (2008) 'Towards a new theoretical framework for understanding regional rural development'  
 Ellis, Frank and Stephen Biggs (2001) 'Evolving Themes in Rural Development 1950s-2000s, Development Policy Review, Vol 19 (4), pp437-448  
 Mayfield, James B. () A Chronology of Rural Development Theory and Practice (1950s-2000s)  
 Wignaraja, Ponna (1985) 'Towards a new Praxis of Rural Development', Annals of Public and Cooperative Economics, Vol 56, Issue 1-2, pp121-43  
 de Janvry, Alain (1975) 'The Political Economy of Rural Development in Latin America: An Interpretation', American Journal of Agricultural Economics, Vol 57 (3), August 1975, pp490-99, 61  
 de Janvry, Alain & Sadoulet, Elisabeth (1989) 'The Political Feasibility of Rural Poverty Reduction', CUDARE Working Papers 198495, University of California, Berkeley, Department of Agricultural and Resource Economics.  
 de Janvry, Alain & Sadoulet, Elisabeth (2003) 'Achieving Success in Rural Development: Toward Implementation of an Integral Approach', 2003 Annual Meeting, August 16-22, 2003, Durban, South Africa: Plenary Sessions 245924, International Association of Agricultural Economists.  
 Majumder, R. (2008) - Infrastructure and Development in India: Interlinkages and Policy Issues, Rawat Estache and Garsous, 2012: The Impact of Infrastructure on Growth in Developing Countries, , IFC Economics Notes;  
 Rodrigue, J-P et al. (2018) The Geography of Transport Systems  
 Nuno Limao and Anthony Venables (1999) Infrastructure, Geographical Disadvantage, and Transport Costs, , World Bank Policy Research Working Paper 2257, 1999;  
 Majumder, R. (2013) Poverty and Inequality in India: The Role of Infrastructure, Asian Economic Review, Vol 55, No 3, 2013;  
 Kurukulasuriya, Pradeep; Rosenthal, Shane. 2013. Climate Change and Agriculture : A Review of Impacts and Adaptations, Environment department papers No. 91. Climate change series. Washington DC ; World Bank. (Page 1-26)  
 Dev, Mahendra. (2011). Climate change, rural livelihoods and agriculture (focus on food security) in Asia-Pacific region.; IGIDR WP 2011-014

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:**

- To introduce students to role and functioning of financial markets, financial products that are traded in such financial markets and institutions associated with financial markets.
- To explain the role of financial system on economic development.
- To make them aware of various conceptual issues related to risk and return, the role of regulatory bodies, mechanism of commercial banking, operations of insurance companies and mutual funds
- To enable them to take the rational decision in financial environment.

**Course Outcomes: At the end of the course, students should be able to:**

CO1. Financial architecture of an economy and its key players

CO2. The fabrication of Indian Financial markets

CO3. Working of Capital market, debt market, money market in India

CO4. Functioning of different regulatory authorities in the financial market which includes institutions like RBI ,SEBI, PFRDA and IRDA

CO5. Students will be informed about money markets & debt markets in India

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>COs</b>
<b>Module I</b>	<p><b>Indian Financial System and major Institutions:</b>                      Structure of Indian Financial System: An overview of the Indian financial system, major reforms in the last decade: Payment banks, GST, monetary policy, Insolvency and Bankruptcy code; issues in financial reforms and restructuring; future agenda of reforms.</p> <p>RBI, SEBI,IRDA,PFRDA, Corporate Governance and SEBI                      Role of central bank and commercial banks, Commercial Banking : Role of Banks, NPA, Risk Management in Banks, Basel Norms, Products offered by Banks and FIs: Retail banking and corporate banking products. Universal Banking: need and importance, trends and RBI guidelines, Core banking solution (CBS); RTGS and internet banking, CAMELS rating</p>	<b>15</b>	<b>CO1 CO4</b>

	system, Basel Norms, MCLR based lending NBFCs and its types; comparison between Banks and NBFCs.		
<b>Module II</b>	<b>Financial Markets in India</b> Introduction to Financial Markets in India: Role and Importance of Financial Markets, Types of Financial Markets: Money Market; Capital Market; Factors affecting Financial Markets, Integration of Indian Financial Markets with Global Financial Markets, Mutual Fund: types of Mutual Funds, Credit Rating Agencies : Role and mechanism, Merchant Bank: role and types, Venture Capital Funds concept, stages of investment , exit options; Private Equity. Foreign Exchange Market: Foreign Capital – FDI & FII	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Capital Market in India:</b> Introduction to Stock Markets, Regional and Modern Stock Exchanges, International Stock Exchanges, Demutualization of exchanges, Comparison between NSE and BSE, Primary and Secondary market, Raising of funds in International Markets: ADRs and GDRs, Indian Stock Indices and their construction, Bulls and Bears in Stock Markets, Factors influencing the movement of stock markets, Instruments traded in stock markets: opening of an account to trade in securities, DEMAT System, placing an order for purchase/sale of share	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Money Markets &amp; Debt Markets in India:</b>  Meaning, role and participants in money markets, Segments of money markets, Call Money Markets, Repos and reverse Repo concepts, Treasury Bill Markets, Market for Commercial Paper, Commercial Bills and Certificate of Deposit.  Introduction and meaning, Primary Market and secondary markets; Issue of Corporate Securities, Market for Government/Debt Securities in India, over subscription and devolvement of Government Securities, Government securities issued by State Governments, Municipal Bonds, Corporate Bonds vs. Government Bonds.	<b>15</b>	<b>CO4</b>

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	2	1	2	1	3	2	-	1	1	1	3
CO2	1	3	3	1	2	1	1	1	1	-	2	1	1	2
CO3	1	2	3	1	2	1	-	2	1	2	1	1	1	2
CO4	1	2	3	1	2	2	-	2	1	2	1	1	1	2
Average	1	2.25	2.75	1.25	1.75	1.5	0.5	2.0	1.25	1.0	1.25	1.0	1.0	2.25

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Pathak, B. Indian Financial System (4th ed). Pearson Publication

Goods and Services Tax: <http://www.gstcouncil.gov.in/about-gst> Insolvency & Bankruptcy Code:  
<http://www.mca.gov.in/Ministry/pdf/TheInsolvencyandBankruptcyofIndia.pdf>

RBI Guidelines on Payment Banks, Monetary Policy Committee, Universal Banking, CAMELS rating system and MCLR based lending

Khan, M.Y. Financial Services (8th ed). Mc Graw Hill Education

Saunders, A. & Cornett, M.M. on Financial Markets and Institutions (3rd Ed.). Tata McGraw Hill

ECO-101-CW-62040: **Regional Economics**

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:** The basic objective of the course is to provide an overview of the scope and method of regional economics to the students. The significance of the spatial aspects of development process is being increasingly realized in a globalised world. The purpose of the paper is to equip the students with the basic tools of regional analysis.

Course Outcomes:

- CO1. The learners will learn about the concept of region and regional economics
- CO2. They will learn about spatial variation in cost, income and employment
- CO3. They will learn about location factors, theories and measurement of locational concentration
- CO4. They will know about the input-output analysis and its application in regional analysis
- CO5. They will learn about regional growth and dependency theory

Module	Content	Contact Hours	COs
Module I	Introduction to Regional Economics and Economic Analysis Regional economics: Definition and scope - Defining a region - Types of Regions, Functional Region, Delimiting functional regions - Relations of activities within a region- Forward and backward linkages - Regional specialization. Price determination in regional setting - Market area analysis - Spatial variation in costs - Regional income and employment determination - Regional income multiplier.	15	CO1 CO2
Module II	Theories of Firm Location: Agglomeration Economies Objectives of location choice - Location factors - Location and the theory of production - Determinants of agglomeration - Location measures: Location quotient, coefficient of localization, localization curve	15	CO3
Module III	Regional Input-Output Analysis Input-output analysis: Introduction - Input-output analysis in a single region - Input-output analysis in a two or more regions: The inter-regional input-output (IRIO) model - Input-output analysis in a two or more regions: The multi-regional input-output (MRIO) system.	15	CO4
Module IV	Regional Growth and Development Causes of regional growth - Interregional trade and factor movements - Interregional convergence and divergence - Central place theory; Growth pole theory; theory of cumulative	15	CO5



	causation; Dependency theory: Centre-periphery and world systems theories.		
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	-	1	1	1	2	1	-	2	2	-	3
CO2	2	2	3	-	1	1	-	3	2	-	2	3	-	2
CO3	2	1	3	-	2	1	-	3	1	-	2	2	-	2
CO4	2	2	3	-	2	1	-	3	1	-	2	2	-	3
CO5	2	3	3	-	3	1	-	3	2	-	2	2	-	3
Average	2.0	2.0	2.8	-	1.8	1.0	0.2	2.8	1.4	-	2.0	2.2	-	2.6

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- Walter Isard, Location and Space-Economy, Cambridge, Mass, The MIT Press, 1956.  
 Hugh O. Nourse, Regional Economics, New York, McGraw-Hill, 1968.  
 Harry W. Richardson, Regional Economics, Urbana, Ill, University of Illinois Press, 1979.  
 Richardson, Harry, Regional Growth Theory, New York, John Wiley and Sons, 1973.  
 Krugman, P. Development, Geography and Economic Theory, 1995.  
 Krikelas, A., "Why Regions Grow: A Review of Research on the Economic Base Model." Economic Review. Federal Reserve Bank of Atlanta. July/August, 1992.  
 W. Isard, et al., Methods for Interregional and Regional Analysis. Ashgate, Adershot, 1998.  
 Fujita, M., P. Krugman and A. Venables, The Spatial Economy, 1999.  
 Blanchard, O.J. and Katz, L., "Regional Evolutions." Brookings Papers on Economic Activity, 1992.  
 Isserman, Andrew, M., "It's Obvious, It's Wrong, and Anyway They Said it Years Ago? Paul Krugman on Large Cities." International Regional Science Review . 19 # 1 & 2: 37 – 48, 1996.  
 Kaldor, Nicholas, "The Case for Regional Policies." Scottish Journal of Political Economy, 17 (Nov), 337 – 348, 1970.  
 King, L.J., Central Place Theory, Beverly Hills, CA, Sage, 1984.  
 Krugman, Paul, "Urban Concentration: the Role of Increasing Returns and Transportation Costs." International Regional Science Review, 19 # 1 & 2: 37-48, 1996  
 Miller, R., and P. Blair. Input-Output: Foundations and Extensions, 1985.  
 Perroux, Francois, "Economic Space, Theory and Applications." Quarterly Journal of Economics, LXIV, 1950.  
 Thomas, Morgan D, "Growth Pole Theory: An Examination of Some of Its Basic Concepts," in Niles Hansen (ed.) Growth Centers in Regional Economic Development, New York: The Free Press: 50-81, 1972.

Temple Marion, "Regional Economics, 1994 St. Martin Press New York USA

Edwards, Mary E, " Regional and Urban Economics and Economic Development Theory and methods, Auerbach Publication Taylor & Francis Group, USA

## ECO -101-CW-62050: Issues in Indian Agriculture

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** This paper aims to give some insights about the state of Indian agriculture in recent times, the significance of the agricultural factor markets and the basic issues of the sector.

**Course Outcomes:**

CO1: The learners will have a glance of the agriculture in the country.

CO2: They will understand the significance and functioning of factor markets in India.

CO3: Students also get knowledge about the major issues of the agriculture in the country.

CO4: The learners will have an ideas about the reforms related to agriculture.

<b>Module</b>	<b>Content</b>	<b>Contact Hours</b>	<b>CO</b>
<b>Module I</b>	<b>State of Indian Agriculture</b> Agriculture growth and stability, share of agriculture in GDP and employment, cropping pattern, crop diversification towards HYV seeds, cropping intensity, irrigation, mechanization, size of holdings and fragmentation	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>Factor Markets</b> Markets of primary inputs of agriculture – land, labour, capital and water; Market for support services - credit, extension service and insurance; interlinkage and semi feudal transaction	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Recent Issues of Indian Agriculture</b> Farmers’ distress; Green Revolution and environment; climate change and its impact on agriculture; Farm income and the Goal of Doubling of farmers income.	<b>15</b>	<b>CO3</b>
<b>Module IV</b>	<b>Reforms related to Agriculture in India</b> Land reforms – implementation and impacts, Economic reforms 1991 and agriculture; reform and changing agrarian structure – food stability and food security; Implication of new economic policy for agriculture; Recent reforms- The Farmer’s Produce Trade and Commerce (Promotion and Facilitation) Act, 2020, The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020, The Essential Commodities (Amendment) Act, 2020.	<b>15</b>	<b>CO4</b>

### Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	1	2	3	1	2	1	-	2	3	-	1	3	-	3
<b>CO2</b>	1	2	3	1	2	1	-	2	3	-	2	3	-	3
<b>CO3</b>	1	2	3	1	2	1	-	2	3	-	1	3	-	3
<b>CO4</b>	1	2	3	1	2	1	-	2	3	-	2	3	-	3
<b>Average</b>	1.0	2.0	3.0	1.0	2.0	1.0	-	2	3	-	1.5	3	-	3

### Recommended Readings

Chand, R, *Doubling Farmers' Income: Strategy and Prospects*, Presidential address, Seventy sixth annual conference, The Indian Society of Agricultural Economics, 2016

Goswami, Binoy, M P Bezbaruah and Raju Mandal (eds.), *Indian Agriculture after the Green Revolution: Changes and Challenges*, Routledge: Abingdon, Oxfordshire, UK and New York, USA, 2018

Kapila, Uma (Ed.), *India's Economic Reforms*, Academic Foundation, New Delhi.

Ministry of Agriculture & Farmers' Welfare (2017), *Report of the Committee on Doubling Farmers' Income*, Volume II, Department of Agriculture, Cooperation and Farmers' Welfare.

Ray, Debraj, *Development Economics*, Oxford University Press, New Delhi, 2011

## ECO-101-CW-62060: Economic Growth, Population and Structural Change

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Learning Objectives:

*This course will serve to introduce the various concepts of economic growth and population to the students. The interrelationship between population growth and economic development will be examined in detail. The course will also review the structural changes brought about by economic growth and the implications for the population.*

### Course Outcomes:

CO1. The course helps the learner to reflect upon the linkages between economic growth and population and about the structural change.

CO2. They will also learn about the interrelationship between economic development and population and the impact of population growth on economic development.

CO3. The learner will acquire knowledge about the issues related to the agrarian outcomes of population growth.

CO4. The learners will know about Population and Development Experiences in India from the Regional perspective

Modules	Content	Contact Hours	COs
Module I	<p><b>Economic Growth and Structural Change:</b>                      Structural Change in Economic History, Structural Change in development economics, Kuznets: A Contemporary Assessment: Sectoral Share in GDP and workforce, factor-share in national income and distribution of income; Inter-sectoral balance, Service Sector Growth: The Case of India                      Population in the theories of Economic Growth: Overview of Harrod-Domar, Solow, Endogenous Growth Theories-The role of savings, capital formation, technological changes and human capital in the process of economic development. Lewis Model: Dual Economy, Surplus Labour</p>	15	CO1
Module II	<p><b>Interrelationship between Economic Development and Population:</b>                      Economic Consequences of Population Growth: Macroeconomic Analysis-Demographic Transition, Malthusian View and Critics. Marxian views on population.                      Microeconomic Foundations: The micro-economics of Fertility                      Impact of Population Growth on Economic Development: Negative and Positive effects; Population, inequality and poverty, Population and innovation</p>	15	CO2

	Age and Sex structure of Population: Dependency Rate, Labour Force Participation Rate, Female labour supply in rural India, Child Labour		
Module III	<b>Agrarian Outcomes of Population Growth</b> Population growth and Production relations in agrarian economies, Relationship between landholding and fertility, Peasant labour supply, population growth, poverty and food security. The Environmental Impact of Population, Population growth, resource availability and environmental quality	15	CO3
Module IV	<b>Population and Development Experiences in India: The Regional Dimension</b> Overview of development policies and outcomes; Regional dimensions of Demographic and economic changes. Demographic Dividend, Human Development Agricultural Development and rural transformation, Employment and unemployment, rural labour market; Urbanisation and migration, Informal Sector	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	3	1	2	1	-	3	1	-	2	2	-	3
CO2	1	2	2	2	1	1	-	2	1	-	2	2	-	3
CO3	1	2	2	2	1	1	-	2	1	-	2	2	-	3
CO4	1	2	2	2	1	1	-	2	1	-	2	2	-	3
Average	1.25	2.0	2.25	1.75	1.25	1.0	-	2.25	1.0	-	2.0	2.0	-	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

Recommended Readings:

**Arndt, H. 1985. *The Origins of Structuralism*. World Development 13(2).**

Basu, K and Pham Hoang Van (1998) The Economics of Child Labour, *The American Economic Review*, 88 (3): 412-427.

Ben-Porath, Y. (1998) The Micro-economics of Fertility, In Demeny and McNicoll (ed)(1998).\*

Birdsall, N. 1977. Analytical Approaches to the Relationship between Population Growth and Development, *Population and Development Review*, Vol.3, No. 1-2.\*

Birdsall, N., A.C. Kelly and S. Sinding. 2000. *Population Does Matter: Demography, Growth and Poverty in the Developing World*. New York: Oxford University Press.

Bloom, D E, D Canning and Malaney (2000) Population dynamics and economic growth in Asia. *Population and Development Review*, 26 Suppl:257-90

Bloom, D. E. and J.G. Williamson. 1998. Demographic Transitions and Economic Miracles in Emerging Asia. *World Bank Economic Review* 12(3): 419-455.

Bloom, D., D. Canning and P.N. Malaney. 2000. Population Dynamics and Economic Growth in Asia. *Population and Development Review*. Supplement to vol. 20: 257-289.

Boserup, E. 1981. *Population and Technological Change: A Study of Long-Term Trends*. Chicago: Chicago University Press.\*

Brackett, James W. (1968) The Evolution of Marxist Theories of Population, *Demography*, 5 (1):158-173.

- Cain, M (1986) Landholding and Fertility: A Rejoinder, *Demographic Studies*, 40, 313-317.\*
- Cain, M. (1985) On the Relationship between Landholding and Fertility, *Demographic Studies*, 39, pp. 5-15.\*
- Cassen, R. 1999. Population and Development Revisited. In Harriss-White, B. and S. Subramanian (Eds.) *Illfare in India: Essays on India's Social Sector in Honour of S. Guhan*. New Delhi: Sage Publications.\*
- Cassen, R.H. 1978. *India: Population, Economy, Society*. London: Macmillan.
- Chenery, Hollis and T.N. Srinivasan, (Ed.) 1988. *Handbook of Development Economics, Volume: I*, North Holland, Amsterdam [Chapters: 1,7,8 and 12]\*
- Coale A. J. and E.A. Hoover. 1958. *Population Growth and Economic Development in Low Income Countries*. Princeton: Princeton University Press.\*
- Crook, Nigel (1997) *Principles of Population and Development*, Oxford University Press, Oxford
- Cropper, M and Charles Griffiths (1994) The Interaction of Population Growth and Environmental Quality, *The American Economic Review*, 84 (2): 250-254.
- Cuffaro, Nadia (1997), 'Population Growth and Agriculture in Poor Countries: Theoretical Issues and Empirical Evidence', *World Development*, 25(7): 1151-1163.
- Dasgupta, Partha (2003) Population, Poverty, and the Natural Environment, In: K.-G. Mäler and J. Vincent, eds, *Handbook of Environmental Economics*, Vol. I (Amsterdam: North Holland), 2003, pp. 191-247.
- Deaton, A. and C. Paxson. 2000. Growth, Demographic Structure and National Saving in Taiwan. *Population and Development Review*. Supplement to vol. 20: 141-173.\*
- Demeny, P and G McNicoll (eds) (1998) *The Earthscan Reader in Population and Development*, London: Earthscan.\*
- Desai, S and Cain, Mead (1981) Risk and Insurance: Perspective on fertility and Agrarian Change in India and Bangladesh, *Population and Development Review*, 7 (3): 435-474.
- Dyson, Tim, Robert Cassen and Leela Visaria, (Ed.) 2004, *Twenty-First Century India: Population, Economy, Human Development and the Environment*, OUP, Delhi\*
- Enke, S. 1976. Economic Consequences of Rapid Population Growth. In M.C. Keeley (Ed.) *Population, Public Policy and Economic Development*. New York: Praeger Publishers.\*
- Fisher, Joseph L and Ronald G Ridker (1973) Population Growth, Resource Availability and Environmental Quality, *The American Economic Review*, 63 (2): 79-87.
- Higgins, M. D. and J.G. Williamson. 1997. Age Structure Dynamics in Asia and Dependence on Foreign Capital. *Population and Development Review*. 23(2):261-293.
- John Laitner (2000) Structural Change and Economic Growth, *Review of Economic Studies* 67 (3), 545–561.
- Johnson, D.G. and R.D. Lee. 1987. *Population Growth and Economic Development: Issues and Evidence*. Madison: University of Wisconsin Press.
- Jones, Charles I. (1998) *Introduction to Economic Growth*, WW Norton & Co., New York
- Katz, J. 2000. Structural Change and Labour Productivity Growth in Latin American Manufacturing Industries 1970-96. *World Development* 28(9).
- Kelley, A.C. and R. M. Schmidt. 1996. Saving, dependency and development. *Journal of Population Economics*. 9(4): 365-386\*
- Kelly, Allan C. (1988) Economic Consequences of Population Change in the Third World, *Journal of Economic Literature*, Vol. 36, No. 4.
- Krishnaji, N (1992) *Pauperising Agriculture: Studies in Agrarian Change and Demographic Structure*, Delhi: Oxford University Press ( Chapters 7-11).\*
- Kuznets, S. 1966. *Modern Economic Growth*. Connecticut: New Haven.\*
- Lee, R.D. 1986. Malthus and Boserup: A Dynamic Synthesis. In D. Coleman and R. Schofield (Eds.) *The State of Population Theory: Forward from Malthus*. Oxford: Basil Blackwell.
- Lee, Ronald (2003) The Demographic Transition: Three Centuries of Fundamental Change, *Journal of Economic Perspectives*, 17(4): 167–190.

ECO-101-CW-62070: **International Trade and Development**

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:**

*Students will learn about the advance theories of international trade and development.*

**Course Outcome:**

- C.O.1** The learners will know about new theories like trade under imperfect competition  
**CO2** They will learn about basics concepts BoP, Capital account convertibility and formation of regional trade blocs  
**CO3** they will know about the role of natural resources in the development of the nations in the context of Dutch Disease  
**CO4** they will learn about the regional integration and its role in trade.

<b>Modules</b>	<b>Content</b>	<b>Contact Hours</b>	<b>COs</b>
<b>Module I</b>	<b>Theory of International Trade</b> Trade under increasing Return – Imperfect competition, Intra-industry trade – Product Life Cycle Theory.	<b>15</b>	<b>CO1</b>
<b>Module II</b>	<b>Balance of Payments</b>  Convertibility – current and capital Accounts, Theories of Regional trade Block, Evolution of European Union, BREXIT, Optimum Currency area, SAPTA, SAFTA and Brics	<b>15</b>	<b>CO2</b>
<b>Module III</b>	<b>Basic issues and Factors in Development</b>  Problems of market: its immaturity, imperfect information, lack of credibility, property rights, and externality – problems in the development of market: adverse selection and moral hazards; Role of State: Peter B Evans’ State as the problem and solution: Predation embedded autonomy and structural change. Natural resource and Dutch disease – technological progress, human capital and increasing return, an overview of endogenous growth models and its evaluation	<b>15</b>	<b>CO3</b>

<b>Module IV</b>	<b>Trade Policy as input to Transition, Development and Integration</b> Regionalism and multilateralism, extent of regionalism: coexistence and conflicts, developing countries: growth crisis and need for reform, trade as input to development, transition and liberalization, theory of economics integration, effects of integration and the basic methods	<b>15</b>	<b>CO4</b>
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	-	2	1	-	2	1	-	2	2	--	2
CO2	2	2	2	-	1	1	-	3	1	-	2	2	-	2
CO3	2	2	2	-	1	1	-	3	1	-	2	2	-	3
CO4	2	2	2	-	2	1	-	2	1	-	2	2	-	2
Average	2.0	2.0	2.0	-	1.5	1.0	-	2.5	1.0	-	2.0	2.0	-	2.25

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

Meier, G M and Rauch, J E (ed.) *Leading Issues in Economic Development*, Oxford University Press, 7<sup>th</sup> edition.

Macho-Stadler, I and Perez-Castillo, J D. *An Introduction to the Economics of Information*, Oxford University Press, 2001.

Mikic, Mia. *International Trade*, Macmillan Education, St. Martin's Press, Scholarly and Reference Division, 175 Fifth Avenue, New York, NY10010, 1998

Soderston, B, *International Economics*, Prentice Hall, Upper Saddle River, N J New York, 1997.

Salvator, D. *International Economics*, Prentice Hall, Upper Saddle River, N J New York, 1997.

Markandya A and Harou Patrice, *Environmental Economics for Sustainable Growth*, Edward Elger, USA, 2002.

Pearce, D W, *Environmental Economics*, Longman, London, 1992.



## ECO-101- CW- 62080: Law and Economics

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objectives:** The course is structured deliver a workable knowledge of law and economics. The students will be able to comprehend the complex processes and dimensions of legal route faced by larger society and to resolve such instances

**Course Outcomes:** At the end of the course, students should be able to:

CO1. Students will be able to Identify and understand the various dimensions of law and economics

CO2. Learners will understand the Importance and dimensions of property and property rights

CO3. Students will understand contract and torts and the Indian Contract Act

CO4. Learners will corroborate the various instances to categories to initiate legal processes.

Modules	Content	Contact Hours	COs
Module I	<b>Introduction to law and Economics</b> Overview of the structure of economic theories and law, Nature and scope of law, Jurisprudence – nature and kinds, Economic analysis of law, Law and legal institutions, structure of legal institutions in India	15	CO1
Module II	<b>Property and Rights</b> Property - origin of the institution, philosophical and legal concept, Types of property and transfers, The economic theory of property, protection of its rights; legal restraints, conflicts, separability, Public and private property; the public use of private property, Behavioural law and economics	15	CO2
Module III	<b>Contract, Torts and Litigation</b> Contract – essentials and types, Economic theory of contract, Remedies, defences and excuses Tort – definition and constituents, classification, <i>maxims</i> , liability and remedies, The economic theory of tort liability, Damage computation	15	CO 3
Module IV	<b>Regulation and Litigation</b> Competition and evolution of antitrust economics, Antitrust limits on contract Basis for suing, information exchange, bargaining settlements, and trials, The traditional theory of criminal law, An economic theory of crime and punishment, An Economic theory of litigation	15	CO4

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	1	2	1	1	2	1	-	2	2	-	2
CO2	2	2	3	1	1	1	1	1	1	-	2	2	-	2
CO3	2	2	2	1	1	1	1	2	1	-	2	2	-	2
CO4	1	2	2	1	2	1	2	1	1	-	2	2	-	2
Average	2.0	2.0	2.5	1.0	1.5	1.0	1.25	1.5	1.0	-	2.0	2.0	-	2.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings

Cooter, Robert and Thomas Ulen (2000), Law and Economics, 3<sup>rd</sup> ed., Addison Wesley Longman, 2000

Cooter, Robert.D and Micheal D. Gilbert (2022), Public Law and Economics, Oxford University Press

Devlin Alan (2015), Fundamental Principles of Law and Economics, Routledge, New York

Satija, Kalpana (2014), Textbook on Economics for Law Students, LexisNexis

Vijaykumar, V. and Vivek Ranjan Pandey (2023), Economic Analysis of Law: An Interdisciplinary Approach of Law and Economics in India, EBC India

## ECO -101-CW -62090: Advanced Econometric Methods and Application

**Total Credit: 4 (3L:1P)**  
**Minimum Contact Hours: 75**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

**Learning Objective:** *This course has been designed to teach students some advance econometric analysis along with its handling with statistical packages.*

**Course Outcomes:**

CO1: The learners will gain knowledge of about time series modelling.

CO2: They will get introduced panel data analysis.

CO3: The learners will learn about use of statistical packages in quantitative analysis in research in economics.

CO4: They will also acquire knowledge to write report based on econometric analysis.

Module	Content	Contact Hours	CO
Module I	Time Series Modeling Univariate Time Series Modeling -Autocorrelation Function and Correlelogram; Basic features of AR, MA, ARMA and ARIMA models; Trend versus Difference Stationary; Cointegration, Error Correction Mechanism; VAR and ARDL models	15	CO1
Module II	Introduction to Panel Data Nature and Advantages of Panel Data; Fixed effect model and Random effect model; Housman Test; Diagnostic tests	15	CO2
Module III	Computer Application Descriptive statistical analysis; Correlation analysis; Estimation of regression models –Linear, LOGIT, PROBIT, TOBIT; Handling of time series data and panel data	15	CO3
Module IV	Report Writing (Practice) Writing of a report based on econometric analysis of data which will carry 20 marks in the final examination.	30	CO4

### Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO2</b>	1	2	3	-	1	2	1	2	3	-	1	1	3	3
<b>CO3</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>CO4</b>	1	2	2	-	1	1	1	2	3	-	1	1	3	3
<b>Average</b>	1.0	2.0	2.5	-	1.0	1.5	1.0	2	3	-	1	1	3	3

**Recommended Readings:**

Gujarati, D.N. *Basic Econometrics*, McGraw Hill, New Delhi, 1995.

Green, W. H. *Econometric Analysis*, fifth edition, Pearson Publication, 2009

Johnston, J, *Econometric Methods*, McGraw Hill, Book Co., London, 1991.

Johnson, R. A. and D.W. Wichern. *Applied Multivariate Statistical Analysis*, Fifth edition, PHI learning Pvt. Ltd., New Delhi, 2009.

Koutsoyiannis, A., *Theory of Econometrics*, The MacMillan Press Ltd., London, 1977.

Maddala, G.S., *Econometrics*, McGraw Hill, New York, 1999.

Salvatore, Dominick and Derrick Reagle, *Statistics and Econometrics*, Schaum's Outline Series, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2005.

Stock, James H. and Mark W. Watson, *Introduction to Econometrics*, Pearson Education, 2004.

Wooldridge, J. F. *Introductory Econometrics: A Modern Approach*, Third edition: South-Western Cengage Learning India, 2008.

## ECO -101-CW -62100: Gender and Regional Development

**Total Credit: 4 (4L)**  
**Minimum Contact Hours: 60**  
**Internal Assessment: 20 Marks**  
**End Semester Exam: 80 Marks**  
**Full Marks: 100**

### Learning Objectives:

*Contemporary development literature clearly establishes that marginalized groups have unequal share of the opportunities that open up in the process of development. Within the 'deprivation layers' of caste, class and ethnicity, women bear the additional burden of their gendered location. In India, not only, gendered processes have a persistent regional dimension that continues to exist despite overall development; development itself can have adverse implications for women. Given this, the proposed course has the objective to provide an analysis of the location of women in processes of development and to understand the centrality of gender in each case; and to examine the theoretical and conceptual frameworks for the analysis, including an understanding of gender divisions and their interaction with other forms of inequality such as caste, class, race, and ethnicity and their spatiality.*

### Course Outcomes:

*CO1. The course helps the researcher to reflect upon the linkages between the global economy and the gendered macro and micro processes of development.*

*CO2. It also provides a basis for research, practical action, and policy formulation and for evaluating directions and strategies for social change.*

*CO3. The learner will also acquire knowledge about gender planning and budgeting.*

Modules	Content	Contact Hours	COs
Module I	<b>Locating Gender in Development Process-I</b>  Theoretical framework – Classical and neo-classical theories of human capital formation, institutions and their feminist critique; gender theories- contextualizing patriarchy and its importance for understanding gender relations and their implication for development processes.	15	CO1
Module II	<b>Locating Gender in Development Process-II</b>  Conceptual shift in the women and development discourse from 'Women in Development' (WID) to 'Gender in Development' (GID) and 'Gender and Development' (GAD).	15	CO2

	Feminist critique of gender perspective in the Indian Planning: from welfare to 'empowerment and women's agency approach. Gender and structural adjustment		
Module III	<b>Regional Dimension of Gender and Development</b> Access and control over resources and assets; the cross-cutting issues of caste and class and space; Spatial-temporal pattern; case studies Social and Economic Aspects: Literacy/education; Women and Economy: Gendered Division of labour- mural and extra-mural; Gendered livelihoods and poverty; workforce trends and implications for emerging regional patterns; caste/class/region overlap; Health: Gender biases in access and utilization of health including reproductive health and its consequences; Gender and political participation: national, state and local. Indigenous knowledge and gender development	15	CO2
Module IV	<b>Gender Planning</b> Gender development Indices; Government and bilateral policies/schemes; Gender budgeting; Institutionalizing gender concerns and gender empowerment in policies and interventions	15	CO3

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	3	1	2	1	1	3	1	-	2	2	-	2
CO2	2	2	3	1	2	1	1	3	1	-	2	2	-	2
CO3	2	3	3	1	1	1	1	2	1	-	2	2	-	3
CO4	2	2	2	2	1	1	1	2	-	-	2	1	-	2
Average	2.0	2.25	2.75	1.25	1.5	1.0	1.0	2.5	0.75	-	2.0	1.75	-	2.25

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

### Recommended Readings:

- Agarwal, Bina. 1994a. *A field of one's own: gender and land rights in South Asia*. Cambridge University Press. Cambridge.
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**ECO-101-RP-6110: RESEARCH PROJECT  
(For MA in ECONOMICS with Research)**

Credit: 40; Contact Hours: 1200; Full Marks: 500
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**Introduction**

The multidisciplinary, transdisciplinary and translational research culture is expected to be introduced at postgraduate level. Such research project undertaken will obviously enhance the research productivity, collaboration at national and international level in various industries, government as well as community based organizations and agencies. Students will carry out research project or dissertation under the guidance of a faculty member of the Department of Economics. The research project/dissertation will be in the major discipline.

**Learning Objectives**

LO1: The post graduates would be able to demonstrate the ability to apply knowledge, understanding, and/or skills with an appropriate degree of independence relevant to the level of the qualification. .

LO2: The post graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well-being of society.

LO3: To enable the students to undertake research projects that are relevant and important.

LO4: To apply pre-learnt concepts to design research problem with help of literature survey.

**Course Outcomes**

**CO1:** Students will do the ground work for research in terms of identifying a relevant research topic (relevance will be decided based on the subject). Identifying the queries and literature review.

**CO2:** Define well formulated specific objectives that help develop the overall research methodology.

**CO3:** To enable students to do sufficient groundwork in terms of preparing the outline of research plan which includes grants, infrastructural requirements and procurement of resources.

**CO4:** By the end of the semester the student is expected compile and communicate the Research Proposal with proper format and if possible have procured funding for the same.

**Norms**

1. The project work/dissertation will be on a topic in the disciplinary programme of study or an interdisciplinary topic.
  2. The students are expected to complete the Research Project during the third and fourth semester. The research outcomes of their project work may be published in peer-reviewed journals or may be presented in conferences /seminars or may be patented.

**Learning Assessment**

Evaluation will be based on continuous assessment, in which sessional work and the terminal examination will contribute to the final grade. Sessional work will consist of class tests, mid-semester examination(s),



homework assignments, etc., as determined by the faculty in charge of the courses of study. Project work in Economics discipline would generally be carried out under the supervision of an expert of the given external entity. The curricular component of 'community engagement and service' will involve activities that would expose students to the socio-economic issues in society so that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems. The final semester will be devoted to seminar presentation, preparation, and submission of project report/dissertation.

Semester	Tasks/ Assignments for Research Project per Semester	Evaluation	Total Marks
III	<p>1. Within 15 days of commencement of the III Semester, all students will be allocated Supervisors as per the norms of RGU or as per availability of faculty with mutual consent.</p> <p>2. Topics will be submitted by such students within 30 days of commencement of the Semester to the HoD office forwarded duly by each allocated Supervisor.</p> <p>3. Three sessional tests will be carried out by each student under the Supervision of the respective Supervisor. Average of these 3 sessional exams will be submitted before end semester examination by each supervisor to HoD Office to prepare the necessary cut-off-list, as per RGU norms.</p> <p>4. Sessional tests would be inclusive of overall progress made by the student during the said semester/journal maintenance/journal article submission to UGC/Scopus listed journals (review/empirical, as the case may be), power point presentation/assignment submission on a relevant topic/conference presentations/workshops attended/ other academic assignments provided by the allocated Supervisor.</p> <p>5. End Semester Examination will comprise of submission of Synopsis (at least 10 days prior to due date of Viva-voce to the HoD office, template of synopsis will be provided by HoD Office) and presentation of the same during Viva-voce in front of the Departmental Research Council (comprising of HoD as Chairman, one Internal Member and One External Member duly nominated by HoD, and approved by CoE, RGU).</p>	<p>Internal=200 Marks</p> <p>End Sem=300 Marks</p>	500
IV	<p>1. After commencement of the 4th Semester, students are expected to collect data/sample from respective sites as proposed in the synopsis. However, they can also do the same in earlier semester, after approval from their respective Supervisor.</p> <p>2. Sessional tests would be inclusive of overall progress made by the student during the said semester/journal maintenance/journal article submission to Peer Reviewed/UGC/Scopus listed journals (review/empirical, as the case may be), power point presentation/assignment submission on a relevant topic/conference presentations/workshops attended/ other academic assignments provided by the allocated Supervisor. Periodic assessment of data collection, analysis and report writing would be carried out by each allocated Supervisor.</p> <p>3. End Semester Examination will comprise of submission of Project Work (at least 10 days prior to due date of Viva-voce to the HoD office) and power point presentation of the same during Viva-voce in front of the Departmental Research Council (comprising of HoD as Chairman, One Internal Member and One External Member, duly nominated by HoD and approved by CoE, RGU)</p>		

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	1	3	3	1	2	2	1	2	2	-	2	3	1	3
CO2	1	3	3	1	2	2	2	2	2	-	2	3	1	3
CO3	1	3	3	1	2	2	2	2	2	-	2	3	1	3
CO4	1	3	3	1	2	2	1	2	2	-	2	3	1	3
Average	1.0	3.0	3.0	1.0	2.0	2.0	1.5	2.0	2.0	-	2.0	3.0	1	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation

**ECO-101-RP-6210: RESEARCH PROJECT**  
**(For MA in ECONOMICS with Coursework and Research)**

Credit: 20 Contact Hours: 600 Full Marks: 300
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**Learning Objectives**

LO1: To developing an understanding about process of research work and its compilation.  
LO2: To inculcate research aptitude among students for quality research work.

**Course Outcomes**

CO1: Understand and comprehend the dynamic process of research plan and work.  
CO2: Develop competencies and skill set necessary for being a researcher.  
CO3: Ability to create new ideas for futuristic research work.  
CO4: Inculcate an understanding of the psychosocial problems and type of methods to measure it.

**Research Project**

- The topic of the project work should be chosen within 15 days of commencement of the IV semester submitted to HoD office. Allocation of the supervisor will also be carried out by Departmental Council of the Department of Economics (DCDE). DCDE will comprise of HoD as Chairman and other faculty members as council members. The allotment of supervisor will be done by the. Preference will be given to supervisor's consent during the allotment process.
- Further, the candidate will be required to submit a brief write up of the plan proposal within stipulated time. The preliminary work for dissertation (e.g., planning the research, selecting tools, etc.) should be completed preferably by the first sessional examination of Semester-IV.
- Data collection and analyses should be completed preferably by the second sessional examination. The writing of the dissertation should be completed preferably by the third sessional examination. The final evaluation of the dissertation will be done at the end semester examination which includes a presentation of the dissertation and the performance in the viva- voce.
- The dissertation work may involve laboratory research, fieldwork, survey research, case study or any other type of Economics research. Further, it may include one large study/experiment or several studies/experiments depending on the objectives of the research. The writing of dissertation must be in accordance with the Publication Manual of the American Psychological Association and should be not less than 60 pages including references and appendices.

**Scheme of Evaluation**

The evaluation of the project work will be done in total 300 marks (240 marks end semester examination + 60 marks of sessional exams). The sessional component will be evaluated by the concerned supervisor. The end term evaluation (in 240 marks) will be done by a board of examiners including HoD, one external member and one internal member. The end term evaluation in 240 marks will include the literary and scientific presentation of the dissertation and the performance in the viva- voce.

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	1	3	3	1	2	2	1	2	2	-	2	3	1	3
CO2	1	3	3	1	2	2	2	2	2	-	2	3	1	3
CO3	1	3	3	1	2	2	2	2	2	-	2	3	1	3
CO4	1	3	3	1	2	2	1	2	2	-	2	3	1	3
Average	1.0	3.0	3.0	1.0	2.0	2.0	1.5	2.0	2.0	-	2.0	3.0	1	3.0

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; -: No Correlation