CURRICULUM FRAMEWORK FOR POST-GRADUATE PROGRAMME IN CENTRE FOR DISTANCE AND ONLINE EDUCATION IN ECONOMICS AS PER NATIONAL EDUCATION POLICY (NEP) - 2020

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

WITH EFFECT FROM THE
ACADEMIC YEAR: 2025-26

RAJIV GANDHI UNIVERSITY - A CENTRAL UNIVERSITY
CENTRE FOR DISTANCE AND ONLINE EDUCATION
RONO HILLS, DOIMUKH
ARUNACHAL PRADESH-791 112

1.0 The Preamble

The Post Graduate Programme in Centre for Development and Online Education (CDOE) in 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
1st Year (1st & 2nd Semester)		400	20 20	--	40
Students who exit at the end of 1st year shall be awarded a Postgraduate Diploma in ECONOMICS					
2nd Year (3rd and 4th 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.

$$SGPA\ (Si) = \Sigma(Ci \times Gi) / \Sigma Ci$$

-where Ci is the number of credits of the i_{th} course and Gi is the grade point scored by the student in the i_{th} course.

Example for Computation of SGPA is given below:

Semester	Course	Credit	Letter Grade	Grade Point	(Credit x Grade)
2	Course1	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.

$$CGPA = \Sigma(Ci \times Si) / \Sigma\ Ci$$

-where Si is the SGPA of the ith semester and Ci 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

Model - I
Course Structure for One Year PG Diploma in ECONOMICS
(Programme Code: CDOE-ECO-1101) /
One Year MA in ECONOMICS with Research /
Two Years M.A. in ECONOMICS with Research
(Programme Code: CDOE-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
6	**I**	CDOE-ECO-101-CC-5110: Microeconomics-III		400	4:0:0	**20**	60	20	80	100
		CDOE-ECO-101-CC-5120: Macroeconomics-II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5130: Public Economics -II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5140: Statistical Method - II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-RC-5110: Research Methodology		500	4:0:0		60	20	80	100
	II	CDOE-ECO-101-CC-5210: Econometrics - I		500	4:0:0	**20**	60	20	80	100
		DE1	CDOE-ECO-101-DE-52010: Growth Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52020: Infrastructure Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52030: Indian Economic Thought	500	4:0:0		60	20	80	100
		DE2	CDOE-ECO-101-DE-52040: Financial Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52050: Institutional Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52060: Behavioural Economics	500	4:0:0		60	20	80	100
		DE3	CDOE-ECO-101-DE-52070: Population Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52080: Gender and Development Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52090: Game Theory	500	4:0:0		60	20	80	100

		CDOE-ECO-101-RC-5210-Research and Publication Ethics /MOOC's Equivalent	500	4:0:0		60	20	80	100
Total Credit (1 Year)					**40**		4:0:0		
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 IV	CDOE-ECO-101-PR-6110: Research Project	500	4:0:0	40	1200	-	-	500
Total Credit (Aggregate)					**80**				
M.A. in ECONOMICS with Research on completion of courses equal to a minimum of 80 credits									

Model - II
Course Structure for PG Diploma in ECONOMICS
(Programme Code: CDOE-ECO-1101)
One Year MA in ECONOMICS with with Coursework & Research /
/Two Years M.A. in ECONOMICS with Coursework & Research
(Programme Code: CDOE-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
6	I	CDOE-ECO-101-CC-5110: Microeconomics-III		400	4:0:0	20	60	20	80	100
		CDOE-ECO-101-CC-5120: Macroeconomics-II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5130: Public Economics -II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5140: Statistical Method - II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-RC-5110: Research Methodology		500	4:0:0		60	20	80	100
	II	CDOE-ECO-101-CC-5210: Econometrics - I		500	4:0:0	20	60	20	80	100
		DE1	CDOE-ECO-101-DE-52010: Growth Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52020: Infrastructure Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52030: Indian Economic Thought	500	4:0:0		60	20	80	100
		DE2	CDOE-ECO-101-DE-52040: Financial Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52050: Institutional Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52060: Behavioural Economics	500	4:0:0		60	20	80	100
		DE3	CDOE-ECO-101-DE-52070: Population Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52080: Gender and Development Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52090: Game Theory	500	4:0:0		60	20	80	100
		CDOE-ECO-101-RC-5210- Research and Publication		500	4:0:0		60	20	80	100

		Ethics /MOOC's Equivalent								
				Total Credit (1 Year)	**40**					
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**	CDOE-ECO-101-CW-61010: Agricultural Economics	500	4:0:0	**20**	60	20	80	100
			CDOE-ECO-101-CW-61020: Industrial Economics	500	4:0:0		60	20	80	100
		Course work 2	CDOE-ECO-101-CW-61030: Econometrics -II	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61040: Demography	500	4:0:0		60	20	80	100
		Course work 3	CDOE-ECO-101-CW-61050: Advanced Mathematical Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61060: Contemporary Issues in Indian Economy	500	4:0:0		60	20	80	100
		Course work 4	CDOE-ECO-101-CW-61070: Labour and Informal Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61080: Economics and Public Policy	500	4:0:0		60	20	80	100
		Course work 5	CDOE-ECO-101-CW-61090: Health Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61100: Economics of Social Sector	500	4:0:0		60	20	80	100
	IV	CDOE-ECO-101-PR-6210: Research Project		500	0:0:20	20	600	60	240	300
				Total Credit (Aggregate)	**80**					
Post-Graduate Degree in ECONOMICS with Coursework & Research on completion of courses equal to a minimum of 80 credits										

Model III
Course Structure for PG Diploma in ECONOMICS
(Programme Code: CDOE-ECO-1101) /
One Year MA in ECONOMICS with with Coursework /
Two Years M.A. in ECONOMICS with Coursework (Programme Code: CDOE-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
6	**I**	CDOE-ECO-101-CC-5110: Microeconomics-III		400	4:0:0	**20**	60	20	80	100
		CDOE-ECO-101-CC-5120: Macroeconomics-II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5130: Public Economics -II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-CC-5140: Statistical Method - II		400	4:0:0		60	20	80	100
		CDOE-ECO-101-RC-5110: Research Methodology		500	4:0:0		60	20	80	100
	II	CDOE-ECO-101-CC-5210: Econometrics - I		500	4:0:0	**20**	60	20	80	100
		DE1	CDOE-ECO-101-DE-52010: Growth Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52020: Infrastructure Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52030: Indian Economic Thought	500	4:0:0		60	20	80	100
		DE2	CDOE-ECO-101-DE-52040: Financial Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52050: Institutional Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52060: Behavioural Economics	500	4:0:0		60	20	80	100
		DE3	CDOE-ECO-101-DE-52070: Population Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52080: Gender and Development Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-DE-52090: Game Theory	500	4:0:0		60	20	80	100
		CDOE-ECO-101-RC-5210- Research and Publication Ethics /MOOC's Equivalent		500	4:0:0		60	20	80	100
Total Credit (1 Year)						**40**				
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		**Course work 1**	CDOE-ECO-101-CW-62010: Agricultural Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61020: Industrial Economics	500	4:0:0		60	20	80	100
		Course work 2	CDOE-ECO-101-CW-61030: Econometrics -II	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61040: Demography	500	4:0:0	**20**	60	20	80	100
		Course work 3	CDOE-ECO-101-CW-61050: Advanced Mathematical Economics	500	4:0:0		60	20	80	100
	III		CDOE-ECO-101-CW-61060: Contemporary Issues in Indian Economy	500	4:0:0		60	20	80	100
		Course work 4	CDOE-ECO-101-CW-61070: Labour and Informal Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61080: Economics and Public Policy	500	4:0:0		60	20	80	100
		Course work 5	CDOE-ECO-101-CW-61090: Health Economics	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-61100: Economics of Social Sector	500	4:0:0		60	20	80	100
		Course work 1	CDOE-ECO-101-CW-62010: The Economy of North East India	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-62020: Entrepreneurship Development	500	4:0:0		60	20	80	100
	IV	Course work 2	CDOE-ECO-101-CW-62030: Indian Financial Institutions and Markets	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-62040: Regional Economics	500	4:0:0	**20**	60	20	80	100
			CDOE-ECO-101-CW-62050: Issues in	500	4:0:0		60	20	80	100

			Indian Agriculture							
		Course work 3	CDOE-ECO-101-CW-62060: Economic Growth, Population and Structural Change	500	4:0:0		60	20	80	100
		Course work 4	CDOE-ECO-101-CW-62070: International Trade and Development	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-62080: Law and Economics	500	4:0:0		60	20	80	100
		Course work 5	CDOE-ECO-101-CW-62090: Advanced Econometric Methods and Application	500	4:0:0		60	20	80	100
			CDOE-ECO-101-CW-62100: Gender and Regional Development	500	4:0:0		60	20	80	100
Total Credit (Aggregate)						**80**				
Post-Graduate Degree in ECONOMICS with Coursework on completion of courses equal to a minimum of 80 credits										

SEMESTER - I

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 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.

Model	Content	Contact Hours	CO
Model I	**Consumer's Choice** 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
Model II	**Uncertainty, Risk and Imperfect Information** 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
Model III	**Theory of Firms** 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

Model IV	**Welfare Economics and General Equilibrium** 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.	**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	-	-	2	2	2	2	2	1	3	3	1	2
CO2	3	2	1	1	2	1	2	1	2	1	3	2	1	1
CO3	2	2	1	1	2	1	1	1	1	1	3	3	1	1
CO4	1	2	1	2	2	1	2	1	2	1	3	3	-	2
Average	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. Rubuinfeld, D.L. & Mehta, P.L. *Microeconomics*, Pearson Education

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Classical and Keynesian Economics** 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**
Model II	**Neo-Classical and Keynesian Synthesis** 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
Model III	**Theories of Consumption**	15	CO3

	Extension of Keynesian consumption function to long run, Relative and past income Hypothesis; Life Cycle Hypothesis; Permanent Income Hypothesis.		
Model IV	**Theories of Investment and Trade Cycle** 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.	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	2	1	2	2	1	2	2	-	3	2	-	3
CO2	3	2	2	2	1	1	1	2	1	1	3	2	-	2
CO3	3	1	2	2	2	2	-	2	2	2	3	2	-	2
CO4	3	1	2	2	1	1	-	2	1	1	3	3	-	2
Average	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*, 8th 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 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

Model	Content	Contact Hours	CO
Model 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
Model 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
Model 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.		
Model 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
Averag e	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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Probability and Mathematical Expectation** 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	**15**	**CO1**
Model II	**Moment and Probability Distribution** Moments & moment generating functions; Skewness and Kurtosis; poisson distribution; binomial distribution; normal distribution	**15**	**CO2**
Model III	**Correlation and Regression** 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	**15**	**CO3**
Model IV	**Statistical Inference** 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; χ^2 (Chi-Square) test	**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	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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model 1	**Meaning of Social Science Research** 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 andits problems, Identification of the economic problem to be researched – literature review.	10	CO1
Model II	**Sample Design and Data Source:** 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
Model III	**Hypothesis Testing** Meaning of Hypothesis, Basic Concept concerning the testing of hypothesis, Procedure of Hypothesis Testing,	20	CO3

	Types of Errors in Hypothesis Testing; two tailed and one-tailed; Z test, t test, chi square test and F test.		
Model IV	**Processing and Analysis of Data using Statistical software** 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

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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

Learning Objective: This course has been designed to impart the knowledge of basic econometric models, it 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 multi-collinearity and errors in variables.

Model	Content	Contact Hours	CO
Model I	**Classical Linear Regression Model** 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.	**15**	**CO1**
Model II	**General Linear Regression Model** Assumptions and estimation, Properties of estimator; Coefficient of determination	**15**	**CO2**
Model III	**Autocorrelation and Heteroscedasticity** 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.	**15**	**CO3**
Model IV	**Multicollinearity and Errors in Variables** 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.	**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	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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model 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 residure, convergence theory.	15	CO1
Model 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
Model III	Endogenous Growth Physical and human Capital; basics of Ramsey model; Lucas and Romer's models; Schumpeter quality ladder	15	CO3
Model 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	PO1 0	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
Averag e	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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

Course OBJECTIVES:

Infrastructural facilities act as the springbroad 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.

Corse 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.

Model	Content	Contact Hours	CO
Model 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
Model 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
Model III	Energy Economics Primacy of energy in the process of economic development – Factors determining demand for energy – Energy conservation –	15	CO2

	Renewable and non-conventional sources of energy – Energy modeling.		
Model 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 Helathcare in India: Social Characteristics and Trends, Sage Publications, New Delhi, 1998.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Economic Thoughts in Ancient India** 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
Model II	**Economic Thoughts during Pre-independence period** 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
Model III.	**Gandhian Economics** 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		
Model IV	**Economic Thoughts in Modern India** 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

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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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Model	Content	Contact Hours	CO
Model 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
Model 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, Modgliani and Miller view of gearing (leverage), critical appraisal of Modgliani and Miller view.	15	CO2
Model 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

Model 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

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, 8th 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model 1	**Institutions and Institutional Economics** 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. 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.	15	CO1
Model II	**Institutions and Transaction Costs** Definitions of transaction and transaction costs. Transaction cost theory. Specific investments. Site specificity, physical asset specificity, dedicated assets. Governance forms. Fundamental transformation. North-Eggertsson classification of transaction costs. Transaction goods. Measurement costs.	15	CO2

	The role of networks in institutional analysis. Evolutionary model of convention formation in different structures. Basic measures: centrality, closeness, betweenness.		
Model III	**Contract Theories** 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
Model IV	**Institutions of Property Rights** 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=edslive&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

Sümeyra 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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 leaners 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.

Model	Content	Contact Hours	CO
Model I	**Introduction and Reference-Dependent Preferences** Themes in Economics and economics- Illustration through examples; Kahneman/Tversky classic experiments; Prospect theory; Market implications: labor supply, marketing, industrial organization	15	CO1
Model II	**Choice Over Time and Bounded Rationality** 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
Model III.	**Behavioral Game Theory and Social Preferences** Game theory & behavioral game theory; Irrational players and equilibrium; Classic experiments; "Distributional" and "intention" models; Labor markets: wage setting and unemployment	15	CO3

Model IV	**Firms' Reactions to Behavioral Consumers and Behavioural Finance** 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

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 Bouded 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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.*

Model	Content	Contact Hours	CO
Model I	**Population Growth and Fertility** Trends of population growth since the beginning of 20th 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
Model II	**Mortality** 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**.**		
Model III	**Migration and Urbanization** 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
Model IV	**Population Policy** 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*
Barcley, 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Gender and Economics: Introduction** 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
Model II	**Work and Employment** 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
Model III	**Agriculture, Environment, Health and Well-Being** 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.		
Model IV	**Gender and Globalisation** 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.

Feber, 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 NewYork, 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.

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

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Agarwal B, *A Field of One's Own: Gender and Property in South Asia*, Cambridge University Press, Cambridge, 1995.
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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.
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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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Introduction to Game theory** 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	**15**	**CO1**
Model II	**Nash Equilibrium and Prisoner' s dilemma** 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.	**15**	**CO2**
Model III	**The Extensive Form Games and Backward Induction** The Extensive form; Perfect information game; Backward induction and its application	**15**	**CO3**
Model IV	**Game Theory and Oligopoly** 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	**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	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

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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model 1	**Philosophy and Ethics** 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
Model II	**Ethics in Economics** Adam Smith and the study of ethics; Sen's view on ethics in economics; Ethics and sustainable economy	15	CO2
Model III	**Scientific Conduct** 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
Model IV	**Publication Ethics and Misconduct** 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.

CDOE-ECO-101-CW-61010**: Agricultural Economics**

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Models	Content	Contact Hours	CO
Model 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
Model 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
Model 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.		
Model 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.

CDOE-ECO-101-CW-61020**: Industrial Economics**

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

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

Model 3	**Investment, Research, Development & Innovation in Industry** **Investment Decisions** - 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
Model 4	**Price and Non-price Competition** 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. Symeonids : 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Alternative Methods of Estimation** 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
Model II	**Dummy Variable and Limited Dependent Variables Models** 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
Model III	**Simultaneous Equation Models** 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
Model IV	**Introduction to Time Series Analysis** 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
CO1	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO2	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO3	1	2	2	-	1	1	1	2	3	-	1	1	3	3
CO4	1	2	2	-	1	1	1	2	3	-	1	1	3	3
Average	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.

CDOE-ECO-101-CW-61040**: Demography**

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Models	Content	Contact Hours	COs
Model I	**Basics of demography and Theories of population** 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.	15	CO1
Model II	**Components of Population change** 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;	15	CO2

	Biological theories of Spencer, Sadler and Doubleday, Basic 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.		
Model III	**Population Growth and projection** 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
Model IV	**Population composition and Distribution** 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

Learning Objective: *This course has been designed to impart the students about advanced tools of mathematics along with is 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.

Model	Content	Contact Hours	CO
Model I	**Production Function and its Application** 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	**15**	**CO1**
Model II	**Application of Matrix Algebra** 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	**15**	**CO2**
Model III	**Game Theory** 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	**15**	**CO3**
Model IV	**Differential Equation and Difference Equation** Deferential equation-meaning, types, solution of first order differential equation and application to Harrod-Domar growth model; difference equation- meaning, types and solution of first order differential equation and application to Cobweb model	**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	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO2	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO3	1	2	2	-	1	1	1	2	3	-	1	1	3	3
CO4	1	2	2	-	1	1	1	2	3	-	1	1	3	3
Average	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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	**Content**	**Contact Hours**	**CO**
Model I	**Contemporary Issues in Banking, Finance and Corporate Restructuring** Banking reform: Nationalization, Non-performing assets and privatization of banks; GST and demonetization	15	CO1
Model II	**Contemporary Issues in Social Sector** Rural Livelihood Mission, MGNREGA, NRHM, SSA, Social Security	15	CO2
Model III	**Pandemic and Indian Economy** Impact of the Covid19 pandemic on the Indian Economy. Impact on Employment and Labour Market, Labour migration	15	CO3
Model IV	**Policy Issues and the Arunachal Economy** Poverty alleviation programmes – Employment generation – Inclusive growth – Evaluation of Five-year plans with special emphasis on the 11^{th} and 12^{th} 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.		

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 ad 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. *2*1(5), 1159-1183.

ECO -101-CW-61070: Labour Economics

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**Introduction to labour Economics** 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	**10**	**CO1**
Model II	**Employment and Unemployment** 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.	**15**	**CO2**
Model III	**Wage determination** 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	**17**	**CO3**

	wage and employment; Labour productivity concept- Measurement, determinants and measures to increase labour productivity		
Model IV	**The Informal Enterprises and Labour** 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 serctor: 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.	**18**	**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:

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 58th Annual Conference of Indian Society of Labour Economics, IIT Guwahati, 24th November.
Hansenne, M. (1991): *The Dilemma of the Informal Sector- Report of Director General (Part1*), International Labour Conference 78th 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 55th 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 57th 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 62nd 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 63rd 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 67th 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*

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Models	Content	Contact Hours	COs
Model 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
Model 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
Model III	Techniques and Models of Policy Implementations:	15	

	Top- down approach to implementation. The implementation game. Bottom up approach. Street level bureaucrats, challenges involved, conditions for successful implementations. Role of various agencies and institutions in policy implementation. Incremental model. Public Sector strategic planning. Dimensions of policy implementations.		
Model 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)

CDOE-ECO-101-CW-61090**: Health Economics**

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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 understood about public health economics.

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

Model	Content	Contact Hours	COs
Model I	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
Model II	**Financing** Health care **and Insurance in Health Care** 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, Reimbursements,	15	CO2

	Information Economics in Health: Moral Hazard and Adverse Selection		
Model III	**Public Health Economics** 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
Model IV	**Health Approaches in India** 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.(Model 3 and 4)

Glied S. and Smith P.C.(ed) (2011) : The Oxford Handbook of Health Economics, New York.(Model 3and 4)

Henderson, J.W. (2001): Health Economics and Policy, South –Western, Thomson Learning. Chapters: 2 and 3 (Model 2)

Mcpake, B., L. Kumanayake and C. Normand (2002): Health Economics: An International Perspective, Routledge. (Model1)

Musgrove, P. (2004): Health Economics in Development, The World bank. Chapters: 2,3,4,9 and 10 (Models 1 and 2)

Panchamukhi, P. R. (2002): Economics of Health: An Introductory Review. ICSSR (Models 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)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.*

Model	Content	Contact Hours	COs
Model I	**Health Economics and Development** 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
Model II	**Determinants and Indicators of Health and Health care Market** 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 services: Equity and Efficiency debate; Evolution of health care policies in India. Cross Country	15	CO2

	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		
Model III	**Introduction to Economics of Education** 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
Model IV	**Financing of Education** 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 Psacharpoulos (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 Psacharpoulos(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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	COs
Model I	**Structure of North East Economy** 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
Model II	**Population** Population: Trends and features, causes for its rapid growth, population growth and economic development - Urbanization: Trends and features, causes for rapid growth and consequences - Work force structure and its changes, participation of female labour force, unemployment situation in North East India.	15	CO2
Model III	**Agriculture and Industries**	20	CO3

	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.		
Model IV	**Infrastructure, Fiscal and Developmental Issues** 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 Puiblishers, 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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Models	Content	Contact Hours	COs
Model I	**Rural Development - Background & Concept** 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. Changing focus of Rural Development Policies over the decades – Political Economy of Rural Poverty Eradication	**15**	**CO1**
Model II	**Rural Development Policies in India** 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 & Functions, 73rd Amendment, Role of PRIs in Rural Development. Contours & Success of selected Rural Development Programs in India - IRDP, SGSY, EGS, MGNREGA, NRHM, ICDS, PURA, DIRECT BENEFIT TRANSFER, etc.	**15**	**CO2**
Model III	**Institutions & Rural Development** Role of Co-operative Institutions: Concept and Principles, Types and Working of Rural Credit Cooperatives, Marketing Cooperatives, Dairy Cooperatives, Sugar Cooperatives, Weavers' Cooperatives. Infrastructure & Rural Development – Role of infrastructure in augmenting Income; Infrastructure, Rural Poverty & Inequality; Infrastructure expansion and Agriculture – Ellet Model; Indian Scenario	**15**	**CO3**
Model IV	**Community Based Interventions for Rural Development**	**15**	**CO4**

	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		

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 & Anjalia 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

CDOE-ECO- 101-CW-62030: Indian Financial Institutions and Markets

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Model	Content	Contact Hours	COs
Model I	**Indian Financial System and major Institutions:** 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. 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 system, Basel Norms, MCLR based lending NBFCs and its types; comparison between Banks and NBFCs.	**15**	**CO1 CO4**

Model II	**Financial Markets in India** 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	**15**	**CO2**
Model III	**Capital Market in India:** 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	**15**	**CO3**
Model IV	**Money Markets & Debt Markets in India:** 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.	**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	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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Model	Content	Contact Hours	COs
Model 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
Model 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
Model 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
Model 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 causation; Dependency theory: Centre-periphery and world systems theories.	15	CO5

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)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model I	**State of Indian Agriculture** 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	**15**	**CO1**
Model II	**Factor Markets** 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	**15**	**CO2**
Model III	**Recent Issues of Indian Agriculture** Farmers' distress; Green Revolution and environment; climate change and its impact on agriculture; Farm income and the Goal of Doubling of farmers income.	**15**	**CO3**
Model IV	**Reforms related to Agriculture in India** 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.	**15**	**CO4**

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	1	2	3	1	2	1	-	2	3	-	1	3	-	3
CO2	1	2	3	1	2	1	-	2	3	-	2	3	-	3
CO3	1	2	3	1	2	1	-	2	3	-	1	3	-	3
CO4	1	2	3	1	2	1	-	2	3	-	2	3	-	3
Average	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

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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

Models	Content	Contact Hours	COs
Model I	**Economic Growth and Structural Change:** 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 Labou	15	CO1
Model II	**Interrelationship between Economic Development and Population:** 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	15	CO2

	Age and Sex structure of Population: Dependency Rate, Labour Force Participation Rate, Female labour supply in rural India, Child Labour		
Model III	**Agrarian Outcomes of Population Growth** 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
Model IV	**Population and Development Experiences in India: The Regional Dimension** 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. Schofled (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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Models	**Content**	**Contact Hours**	**COs**
Model I	**Theory of International Trade** Trade under increasing Return – Imperfect competition, Intra-industry trade – Product Life Cycle Theory.	**15**	**CO1**
Model II	**Balance of Payments** Convertibility – current and capital Accounts, Theories of Regional trade Block, Evolution of European Union, BREXIT, Optimum Currency area, SAPTA, SAFTA and Brics	**15**	**CO2**
Model III	**Basic issues and Factors in Development** 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	**15**	**CO3**

Model IV	**Trade Policy as input to Transition, Development and Integration** 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	**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	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, 7th 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.

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

Total Credit: 4 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Models	Content	Contact Hours	COs
Model I	**Introduction to law and Economics** 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
Model II	**Property and Rights** 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
Model III	**Contract, Torts and Litigation** Contract – essentials and types, Economic theory of contract, Remedies, defences and excuses Tort – definition and constituents, classification, *maxims*, liability and remedies, The economic theory of tort liability, Damage computation	15	CO 3
Model IV	**Regulation and Litigation** 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, 3rd 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 (4L)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Model	Content	Contact Hours	CO
Model 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
Model II	Introduction to Panel Data Nature and Advantages of Panel Data; Fixed effect model and Random effect model; Housman Test; Diagnostic tests	15	CO2
Model 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
Model 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
CO1	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO2	1	2	3	-	1	2	1	2	3	-	1	1	3	3
CO3	1	2	2	-	1	1	1	2	3	-	1	1	3	3
CO4	1	2	2	-	1	1	1	2	3	-	1	1	3	3
Average	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)
Total Learning Hours: 30 x 4= 120
Examination Duration : 3 Hours
Maximum Marks : 100 Marks
Internal Assessment: 30 marks
End Semester Exam: 70 marks

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.

Models	Content	Contact Hours	COs
Model I	**Locating Gender in Development Process-I** 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
Model II	**Locating Gender in Development Process-II**	15	CO2

	Conceptual shift in the women and development discourse from 'Women in Development' (WID) to 'Gender in Development' (GID) and 'Gender and Development' (GAD). Feminist critique of gender perspective in the Indian Planning: from welfare to 'empowerment and women's agency approach. Gender and structural adjustment		
Model III	**Regional Dimension of Gender and Development** 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
Model IV	Gender Planning 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.

Boserup, Ester (1989). *Woman's Role in Economic Development.* Earthscan, London. 283 pp.

Bowlby, S., Lewis, J., McDowell, L. and Foord, J. (1989) 'The Geography of Gender', in Peet and Thrift (eds) *New Models in Geography 2.* Unwin Hyman

Coltrane, S. (1994). 'Theorizing Masculinities in Contemporary Social Science', *in Theorizing Masculinities*. H. Brod and M. Kaufman (eds.), pp. 39-60. Thousand Oaks: Sage.

Drèze Jean and A. Sen (2002) *India: Development and participation*, Delhi: Oxford University Press.
Human Development in South Asia 2000: The Gender Question, The Mahbub ul Haq Human Development Centre. Delhi, Oxford University Press, 2000, 219 p
Kabeer Naila 'Reversed Realities' Oxford University Press
Kapadia Karin (2002) *The Violence of Development: The Politics of Identity, Gender and Social Inequalities in India*, New Delhi: Kali for Women
Moser, Caroline O.N., "Gender planning in the Third World: Meeting practical and strategic needs", *World Development*, 17(11), 1989.
Nussbaum, M. & Glover, G. (1995). *Women, Culture and Development. A Study of Human Capabilities.* Oxford University Press.
Raju Saraswati (With Deipica Bagchi) *Women and Work in South Asia: Regional Patterns and Perspectives*, Routledge: London and New York.
---- et. al. (1999) *Atlas on Men and Women in India*, New Delhi: Kali for Women
Shiva, Vandana (1988). *Staying Alive. Women, Ecology and Development.* Zed Books, London. 224 pp.
Walby, S. (1990) *Theorizing Patriarchy.* Blackwell

CDOE-ECO-101-RP-6110: RESEARCH PROJECT
(For MA in ECONOMICS with Research)

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

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	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. 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. 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. 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. 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).	Internal=200 Marks End Sem=300 Marks	500
IV	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. 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. 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)		

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

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

Credit: 20
Contact Hours: 600
Full Marks: 300

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.

Cou**rse 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.

Re**search 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