

CURRICULUM FRAMEWORK
FOR
UNDER GRADUATE PROGRAMME IN ECONOMICS
AS PER NATIONAL EDUCATION POLICY (NEP)-2020
RAJIV GANDHI UNIVERSITY - A CENTRAL UNIVERSITY



DEPARTMENT OF ECONOMICS
RONO HILLS, DOIMUKH
ARUNACHAL PRADESH-791 112
WITH EFFECT FROM ACADEMIC YEAR: 2023-24

1.1 THE PREAMBLE

The Under Graduate Programme in Economics, Rajiv Gandhi University, Rono Hills, is designed as per the NEP-2020 norms. It is aimed at providing an enabling curriculum for the students to grow as competent, self-reflective learners with relevant academic and professional skills in the discipline of Economics. The academic significance of Economics as a subject in social sciences has grown many folds in recent years. Over the years, the study of economics has also diversified and newer areas have been incorporated within its fold.

The objective of the Under Graduate programme is to train and enhance the skills of the students in a qualitative direction where they will learn to explore and employ their growing expertise in real-life fields. The One Year Certificate/Two Year Diploma/Three Year Under Graduate Degree/Four Year Under Graduate Degree (Honours without Research)/Four Year Under Graduate Degree (Honours with Research) in Economics is a four-year (eight semesters) programme of credits. It will include major courses, minor courses, multidisciplinary courses, skills enhancement courses, value-added courses and ability enhancement courses with multiple exit points. The programme will adopt a flexible curricular structure to ensure creative combinations of the disciplinary areas. The undergraduate degree programme of 4- year duration has multiple exit points with appropriate certifications such as: a UG certificate after completing 1 year (2 semesters) and additional 4 credits training/internship, a UG diploma after 2 years (4 semesters) of study and additional 4 credits training/internship, a bachelor's degree after a 3-year (6 semesters) of study, and UG degree with Honours / UG degree with Research and Honours degree after 4 years (8 semesters) of study. The evaluation and examination procedures will be as per the regulations and guidelines imbibed in the Rajiv Gandhi University examination ordinance.

1. PROGRAMMES EDUCATIONAL OBJECTIVES (PEOs)

The Under Graduate programme in Economics aims to fulfill the following objectives:

PEO1: To develop an in-depth knowledge in different areas of economic theory and methods, both at the micro and at the macro level of enquiry.

PEO2: To impart the necessary theoretical and quantitative skills for scientific data collection and analysis.

PEO3: To create an enabling eco-system for students to pursue their studies in their areas of interest by offering specialised optional courses.

PEO4: To provide opportunities to students to apply the acquired theoretical knowledge of the subject so as to write a dissertation on the basis of field-study and/or by using the secondary data.

PEO5: To prepare students to develop critical thinking and to carry out the investigation about the various socio-economic issues objectively while bridging the gap between theory and practice.

PEO6: To equip students with the necessary analytical skills to identify problems, formulate hypothesis, evaluate and validate results and draw reasonable conclusions thereof.

PEO7: To train the students for career options in research and other areas that provide employment through entrepreneurship and innovative methods.

PEO8: To encourage learners to develop the micro and small entrepreneur skills.

PEO9: To impart the required training to students to pursue research in Economics for an in-depth analysis of the economic issues based on their deeper understanding of economics as a discipline theory, aimed at encouraging doctoral research.

PEO10: Finally, to prepare the students to develop their own original thinking regarding regional, national and international issues and policies in an objective and dispassionate manner.

1.2 PROGRAMME OUTCOMES (POs)

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

PO2: Critical Thinking and Problem Solving: The 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: Community Engagement & Service: The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well-being of society.

PO4: Indian Context and Good Citizenship: The graduates 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: Coping with Real Life Situations: The 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: The 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: Communication Skills: The 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 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: Research Related Skills: The graduates should be able to demonstrate a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions, the ability to problematize, synthesize, and articulate issues and design research proposals, the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, the capacity to develop appropriate methodology and tools for data collection, the appropriate use of statistical and other analytical tools and techniques, the ability to plan, execute and report the results of an experiment or investigation, the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work, regardless of the funding authority or field of study.

PO10: Leadership Qualities: The 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.

1.3 PROGRAMME SPECIFIC OUTCOMES (PSOs):

The learners who complete four years would earn an Under Graduate Honours/Honours with Research Degree in ECONOMICS. The learning outcomes that a student should be able to demonstrate on completion of a degree level programme may involve academic, behavioural 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.

1.5 Certification Criteria (Multiple Exit Options)

UG Certificate (Programme Code: ECO-1001)-Students exiting the programme after securing 40 credits will be awarded UG Certificate in the relevant discipline/subject provided they secure 4 credits in work based vocational courses offered during the summer term or internship/apprenticeship in addition to 6 credits from skill-based courses earned during the first and second semester.

UG Diploma (Programme Code: ECO -2001)-Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant discipline/subject. Out of 80 credits, students will have to secure 4 credits in skill-based vocational courses offered during the first year or second year summer term.

Three-Year UG Degree (Programme Code: ECO -3001)-Students who wish to undergo a three year UG programme will be awarded UG Degree in the Major discipline after successful completion of three years, securing 120 credits.

Four-Year UG Degree (Honours) (Programme Code: ECO -4001)- A four-year UG Honours Degree in the major discipline will be awarded to those who complete a four-year degree programme with 160 credits.

Four-Year UG Degree (Honours with Research) (Programme Code: ECO -5001)- A four-year UG Degree in Honours with Research will be awarded to those students who complete a four-year degree programme with 160 credits, including 12 credits from a research project/dissertation in the major discipline.

1.6 Other Key Criteria for UG Programme

- **Selection of Minor Course:** Students of Economics (major) would opt for minor courses from the minor courses offered by other departments. Minor courses of Economics will be offered to Non-Economics (Honours) Students.
- **Selection of Multidisciplinary Course:** Students in Economics major would have to select a multidisciplinary course from the basket of multi-disciplinary courses provided in the common structure (student will select that subject which he/ she have not studied earlier or have not taken as major or minor course). However, students of Economics major (or minor) would not be allowed to select multidisciplinary courses offered by the Department of Economics.
- **Selection of Compulsory Value-Added Course:** Students in Economics major would have to select a compulsory value-added course from the basket of value-based courses provided in the common structure.
- **Research at UG Programme:** Students who secure 75% marks and above in the first six semesters can undertake research at the undergraduate level/in the fourth year, as per NEP-2020.
- **For Honours students not undertaking Dissertation in VIII semester:** Students in Economics not undertaking research project/dissertation work will have to do 3 courses of 12 credits in lieu of research project/dissertation.
- **Exit and Re-entry:** Exit and re-entry option in the degree programme in Economics will be allowed at 2nd (first year) and 4th semester (second year) to those students who have awarded UG Certificate and UG Diploma, respectively. However, these students will be allowed to re-enter the degree programme within 3 years after their exit and will have to complete the degree programme within the stipulated maximum period of seven years.

1.7. Structure of the Four Year Undergraduate 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

		ECO-001-CC-4140 – Statistical Method - II	4											
	VIII	ECO-001-CC-4210 – Econometrics- I	4	ECO-001-MC-4210-Research and Publication Ethics/ MOOC	4									20
		ECO-001-DE- 42 XX0– Department Elective 1	4											
		ECO-001-DE- 42 XX0– Department Elective 2	4											
		ECO-001-DE- 42 XX0– Department Elective 3	4											
Total Credit (Fourth Year)			32		8									40
Award of Four-Year Bachelor’s Degree (Honours) in ECONOMICS on completion of courses equal to a minimum of 160 Credits (ECO-4001)														
6.0	VIII	ECO-001-CC-4210 – Econometric- I	4	ECO-001-MC-4210-Research and Publication Ethics/ MOOC	4									20
		ECO-001-RP-0010- Research Project	12											
Total Credit (Fourth Year)			32		8									40
Award of Four-Year Bachelor’s Degree (Honours with Research) in ECONOMICS on completion of courses equal to a minimum of 160 Credits including Research project having 12 credit (ECO-5001)														
*Students can opt from the bouquet of courses offered by the University/Departments from time to time. #Summer Internship: 8 Weeks Summer Internship should be completed by students who opt for UG Certificate programme. Abbreviations: VAC- Value Added Course; MDC-Multi-Disciplinary Course; AECC-Ability Enhancement Compulsory Course; SEC- Skill Enhancement Course; MOOC’s- Massive Open Online Courses.														

Programme Code and Subject Code Schema: ABC-DDD-CT-YSPR

ABC	Discipline Code (viz. CSE: Computer Science and Engineering, SOW: Social Work etc.)
DDD	DDD-The unique number for each programme like B.A.-001, B.Sc.-002 etc. 001=Programme Code for B.A.
CT	Course Type (Viz. CC: Core Course, DE: Department Elective, MC= Minor Course, MDC= Multidisciplinary courses, VA= Value Added Course, SE= Skill Enhancement Course, AECC= Ability Enhancement Compulsory Course)
YSPR	Year-Semester-Paper Serial-Sequence of Revision (currently zero)

First Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-1110	Microeconomics-I	4	0	0	4	60	20	80	100
XXX-001-AE-XXXX	AEC-1	-	-	-	4	60	20	80	100
ECO-001-SE-0010	Entrepreneurship Development	3	0	0	3	45	20	80	100
XXX-001-MC-1110	Minor- 1	--	-	-	4	60	20	80	100
XXX-001-VA-0010	VAC- 1	-	-	-	2	30	20	80	100
XXX-001-MD-1110	MDC-1	-	-	-	3	45	20	80	100

Second Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-1210	Macroeconomics-1	4	0	0	4	60	20	80	100
XXX-001-AE-XXXX	AEC-2	-	-	-	4	60	20	80	100
ECO-001-SE-0020	Introduction to Data Analysis	3	0	0	3	45	20	80	100
XXX-001-MC-1210	Minor-2	--	-	-	4	60	20	80	100
XXX-001-VA-0020	VAC- 2	-	-	-	2	30	20	80	100
XXX-001-MD-1210	MDC-2	-	-	-	3	45	20	80	100

Third Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-2110	Microeconomics-II	4	0	0	4	60	20	80	100
ECO-001-CC-2120	Mathematical Economics-I	4	0	0	4	60	20	80	100
ECO-001-SE-0030	Tourism Economics	3	0	0	3	45	20	80	100
XXX-001-MC-0010	Minor- 3	-	-	-	4	60	20	80	100
XXX-001-VA-0020	VAC-3	-	-	-	2	30	20	80	100
XXX-001-MD-2110	MDC-3	-	-	-	3	45	20	80	100

Fourth Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-2210	Money and Banking	4	0	0	4	60	20	80	100
ECO-001-CC-2220	International Economics- I	4	0	0	4	60	20	80	100
ECO-001-CC-2230	Growth and Development Economics	4	0	0	4	60	20	80	100
ECO-001-CC-2240	Statistical Method -I	4	0	0	4	60	20	80	100
XXX-001-MC-2210	Minor-4	-	-	-	4	60	20	80	100

Fifth Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-3110	Mathematical Economics-II	4	0	0	4	60	20	80	100
ECO-001-CC-3120	Public Economics-I	4	0	0	4	60	20	80	100
ECO-001-CC-3130	Introduction to Environmental Economics	4	0	0	4	60	20	80	100
ECO-001-CC-3140	History of Economic Thought	2	0	0	2	30	20	80	100
XXX-001-MC-3110	Minor- 5	-	-	-	4	60	20	80	100
ECO-001-IN-0010	Internship	-	-	-	2		20	80	100

Sixth Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-3210	International Economics-II	4	0	0	4	60	20	80	100
ECO-001-CC-3220	Development Economics	4	0	0	4	60	20	80	100
ECO-001-CC-3230	Environmental Economics	4	0	0	4	60	20	80	100
ECO-001-CC-3240	Indian Economy	4	0	0	4	60	20	80	100
XXX-001-MC-3110	Minor- 6	-	-	-	4	60	20	80	100

Seventh Semester									
Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
		L	T	P	Total		Internal	End Semester	Total
ECO-001-CC-4110	Microeconomics-III	4	0	0	4	60	20	80	100
ECO-001-CC-4120	Macroeconomics-II	4	0	0	4	60	20	80	100
ECO-001-CC-4130	Public Economics -II	4	0	0	4	60	20	80	100
ECO-001-CC-4140	Statistical Method - II	4	0	0	4	60	20	80	100
ECO-001-MC-4110	Research Methodology	4	0	0	4	60	20	80	100

Eighth Semester										
Course Code	Course Name	Credit				Contact Hours	Maximum Marks			
		L	T	P	Total		Internal	End Semester	Total	
ECO-CC-4210	Econometrics-I	4	0	0	4	60	20	80	100	
<p>There are three groups of Departmental elective (DE) paper courses. In each group there are three papers. Students will have to opt one DE from each group given below. They may also choose one MOOC paper from the SWAYAM website of credit 4 instead of one Department Elective (only one MOOC Course is allowed). However, they have to inform the Department about it in the begging of the semester.</p>										
DE I	ECO-DE-42010	Growth Economics	4	0	0	4	60	20	80	100
	ECO-DE-42020	Infrastructure Economics	4	0	0	4	60	20	80	100
	ECO-DE-42030	Indian Economic Thought	4	0	0	4	60	20	80	100
DE II	ECO-DE-42040	Financial Economics	4	0	0	4	60	20	80	100
	ECO-DE-42050	Institutional Economics	4	0	0	4	60	20	80	100
	ECO-DE-42060	Behavioural Economics	4	0	0	4	60	20	80	100
DEIII	ECO-DE-42070	Population Economics	4	0	0	4	60	20	80	100
	ECO-DE-42080	Gender and Development Economics	4	0	0	4	60	20	80	100
	ECO-DE-42090	Game Theory	4	0	0	4	60	20	80	100
ECO-001-MC-4210	Research and Publication Ethics/ MOOC	4	0	0	4	60	20	80	100	

Minor Courses (MC) offered by Department of Economics:

Semester	Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
			L	T	P	Total		Internal	End Sem Exam	Total
I	ECO-001-MC-1110	Elementary Microeconomics	4	0	0	4	60	20	80	100
II	ECO-001-MC-1210	Elementary Macroeconomics	4	0	0	4	60	20	80	100
III	ECO-001-MC-2110	Money and Banking	4	0	0	4	60	20	80	100
IV	ECO-001-MC-2210	Elementary Economic Development	4	0	0	4	60	20	80	100
V	ECO-001-MC-3110	Public Finance	4	0	0	4	60	20	80	100
VI	ECO-001-MC-3210	Issues in Indian Economy	4	0	0	4	60	20	80	100
VII	ECO-001-MC-4110	Research Methodology	4	0	0	4	60	20	80	100
VIII	ECO-001-MC-4210	Research and Publication Ethics	4	0	0	4	60	20	80	100

Skill Enhancement Course (SE):

Semester	Course Code	Course Name	Credit				Class Hours	Maximum Marks		
			L	T	P	Total		Internal	End Sem Exam	Total
I	ECO-001-SE-0010	Entrepreneurship Development	3	0	0	3	45	20	80	100
II	ECO-001-SE-0020	Introduction to Data Analysis	3	0	0	3	45	20	80	100
III	ECO-001-SE-0030	Tourism Economics	3	0	0	3	45	20	80	100

Value Added Course (VAC):

Semester	Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
			L	T	P	Total		Internal	End Sem Exam	Total
I	ECO-001-VA-0010	Computer Application	2	0	0	2	30	20	80	100
II	ECO-001-VA-0020	Ecotourism	2	0	0	2	30	20	80	100
III	ECO-001-VA-0030	Indian Economic History	2	0	0	2	30	20	80	100

Multi-Disciplinary Course (MDC):

Sem	Course Code	Course Name	Credit				Contact Hours	Maximum Marks		
			L	T	P	Total		Internal	End Sem Exam	Total
I	ECO-001-MD-0010	Economic Theory I	3	0	0	3	45	20	80	100
II	ECO-001-MD-0020	Economic Theory II	3	0	0	3	45	20	80	100
III	ECO-001-MD-0030	Basic Features of Indian Economy	3	0	0	3	45	20	80	100

SEMESTER I

ECO-001-CC-1110: Microeconomics-I

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

Learning Objective: This course has been designed to impart knowledge of the basic concepts and theories of microeconomics to the learners.

Course Outcomes:

CO 1. The learners will learn about the problems of choice, concept of opportunity cost and the economic problems of the developing countries.

CO 2. The learners will also know about the concept of utility, demand and supply analysis.

CO 3. They will acquire knowledge about the various theories of production, concepts of cost and revenue.

CO 4. The learners will have a better understanding of the various forms of market in an economy.

Module	Content	Contact Hours	Course Outcome
Module I	Introduction Definition, Nature and Scope of Economics; what is Microeconomics? scarcity and choice; the concept of opportunity cost; the question of what to produce, how to produce and how to distribute output; Types of Microeconomic Analysis: Positive and Normative, Static, Comparative Statics and Dynamics, Goal of Microeconomic Policy: Efficiency and Equity; Microeconomic Model.	10	CO1
Module II	Demand and Supply Analysis Concept of Demand and Supply: individual and market Demand & Supply, changes in supply and demand, market equilibrium and the impact of changes in demand and supply; Elasticity of Demand and Supply- Types, Measurement and Factors affecting elasticity of demand and Supply.	15	CO2
Module III	Theory of Production and Cost Production Function; Laws of Production – Law of Variable Proportions: Three Stages of the Law of Variable Proportions, Return to a Factor; Law of Returns to Scale; Isoquants; production functions with one and more variable inputs; returns to scale; Law of variable proportion, marginal rate of technical substitution, iso-cost line and firm 's equilibrium, elasticity of substitution; cost minimization; expansion path, short run and long run costs; various cost	20	CO3

	curves in the short run and long run and its relation; economies of scale; increasing and decreasing cost industries; envelope curve; economies of scale.		
Module IV	Theory of Distribution and factor Pricing Marginal Productivity theory of distribution, Marxian theory of Distribution, Ricardian and modern theory of Rent, wage determination under collective bargaining, Loanable fund theory of Interest, Risk bearing theory of profit, Innovation theory of Profit, Dynamic theory of Profit.	15	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	0	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	3	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; 0: No Correlation

Recommended Readings:

- Domnick Salvatore., *Principles of Micro Economics*, Oxford, New Delhi.
- Koutsoyiannis, A., *Modern Micro Economics*, Macmillan Press, London, 1979
- Gregory Mankiw, N., *Principles of Macro Economics*, CENGAGE Learning, Australia.
- Maddala G. S. and Ellen Miller., *Microeconomics Theory and Application*, TATA Mc Graw Hills.
- Snyder Christopher and Walter Nicholson., *Fundamental of Microeconomics*, CENGAGE publication, New Delhi
- Varian, H., *Microeconomic Analysis*, W.W. Norton, New York, 2000.
- Baumol, W. J., *Economic Theory and Operations Analysis*, Prentice Halls of India, New Delhi, 1982.
- Henderson, J.M. and R.E. Quant, *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi, 1980.
- Kreps, M.D., *A Course in Microeconomic Theory*, Prentice Hall of India, New Delhi, 1992.
- Ray, N.C., *An Introduction to Microeconomic Theory*.
- Mishan, E.J., *Welfare Economics: An Assessment*, North Holland, Amsterdam, 1969.
- Sen, Anindya, *Microeconomics, Theory and Applications*, Oxford University Press, 1999.
- Pindyck, R. S. Rubinfeld, D.L. & Mehta, P.L. *Microeconomics*, Pearson Education

ECO-001-MC-1110: Elementary Microeconomics

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

Learning Objective: This course has been designed to impart the knowledge with regard to the concepts of microeconomics. It will deal with the economic problems, production possibility curve, opportunity cost, demand and supply analysis, production, cost and revenue as well as market structure.

Course Outcome:

CO 1. The learners will gain knowledge about the different concepts of microeconomics.

CO2. The learners will also learn about the concept of utility, elasticity of demand and supply.

CO 3. They will also understand about the production function analysis and about firm's equilibrium.

CO 4. The learners will learn about the cost and revenue of a firm and the various forms of market.

Module	Content	Contact Hours	CO
Module 1	Introduction Definitions of economics, nature and scope of economics, micro and macroeconomics, fundamentals economic problems, production possibility curve and opportunity cost, economic problems of a developing country: low savings, low level of technology, scarcity of human and physical capital, poverty and inequality.	10	CO1
Module II	Consumer Behaviour Concept of utility, marginal and total utility, law of diminishing marginal utility, equi-marginal utility and derivation of demand curve; Marginal rate of substitution; indifference curve and derivation of demand curve; price decomposition of price effect; elasticity of demand: price, income and cross.	15	CO2
Module III	Production Behaviour and Cost Supply and elasticity of supply; production function, equilibrium of a firm, total, average and marginal product of inputs, returns to a factor, Marginal rate of technical substitution isoquants and its characteristics, returns to scale. Cost Function: Short and Long-run, relationship between short-run average and marginal cost; Total, average and marginal revenue; relationship between AR and MR.	20	CO3
Module IV	Market Structure Perfect competition: its features and limitations, equilibrium of a firm; imperfect competition: Features of monopoly and monopolistic competitions; discriminating monopoly; features of duopoly and oligopoly.	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	2	2	-	1	-	-	1	2	1	2
CO2	2	2	1	-	2	2	-	1	-	-	2	2	1	1
CO3	2	1	1	-	1	1	-	-	-	-	2	1	1	1
CO4	3	1	1	1	2	1	-	1	-	-	2	2	2	1
Average	2.5	1.5	1	0.5	1.75	1.5	-	0.75	-	-	1.75	1.75	1.25	1.25

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

Recommended Readings:

Case, K. E., Fair, R. C., & Oster, S. E. (2020). Principles of Microeconomics (13th ed.). Pearson Education.

Dorman, P. (2014). Microeconomics: A Global Text. Springer.

Koutsoyiannis, A. (1979). Modern Microeconomics. Macmillan International Higher Education.

Kreps, D. M. (2019). Microeconomics for Managers (2nd ed.). Princeton University Press.

Krugman, P., & Wells, R. (2020). Microeconomics (5th ed.). Worth Publishers.

Mankiw, N. G. (2020). Principles of Microeconomics (8th ed.). Cengage Learning.

Nicholson, W., & Snyder, C. (2016). Microeconomic Theory: Basic Principles and Extensions (12th ed.). Cengage Learning.

Perloff, J. M. (2017). Microeconomics: Theory and Applications with Calculus (4th ed.). Pearson Education.

Pindyck, R. S., & Rubinfeld, D. L. (2018). Microeconomics (9th ed.). Pearson Education.

Varian, H. R. (2014). Intermediate Microeconomics: A Modern Approach (9th ed.). W.W. Norton & Company.

ECO-001-MD- 1110: Economic Theory-I

Minimum Contact hours: 45 hours

Total Credit: 03 (3L)

Internal Assessment: 20 marks

End Semester Exam: 80 marks

Full Marks: 100

Learning Objective: This course has been designed to impart knowledge with regard to the various concepts of economics such as supply and demand; cost of production and revenue and different market structure.

Course Outcome:

CO1. The learners will acquire the knowledge about the different concepts of demand and supply.

CO2. The learners will acquire the knowledge about the cost of production and revenue.

CO3. The learners will have a clear idea different market structure. .

Module	Content	Contact Hours	CO
Module I	Introduction Definitions of economics, nature and scope of economics, micro and macroeconomics, fundamentals economic problems, production possibility curve and opportunity cost, Factors of Production: Land, labour, capital and organization; Concepts of wage, rent, interest and profit.	10	CO1
Module II	Demand and Supply Concept of Utility, marginal and total utility, law of diminishing marginal utility, utility maximization; demand and its determinants, law of demand, elasticity of demand: price, income and cross; law of supply and elasticity of supply.	10	CO1
Module III	Production Analysis Cost of Production: Short and Long-run, relationship between short-run average and marginal cost; Total, average and marginal revenue; relationship between AR and MR. Law of variable proportion and returns to scale.	13	CO2
Module IV	Market Structure Perfect competition: its features, equilibrium of a firm and market in perfect competition; Features of monopoly and determination of price in a monopoly market, price discrimination (concept only); characteristics of a firm under monopolistic competitions, price determination and advertising cost.	12	CO3

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	3	2	-	2	2	2	2	2	1	3	3	2	1
CO2	3	2	2	1	2	2	2	2	2	1	3	2	2	1
CO3	2	3	2	1	2	2	2	2	2	1	2	3	2	-
Average	2.67	2.67	2	0.67	2.0	2.0	2.0	2.0	2.0	1.0	2.67	2.67	2.0	0.67

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

Recommended Readings:

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

Domnick Salvatore., Principles of Micro Economics, Oxford, New Delhi.

Salvatore, D. Microeconomics Theory and Applications, Oxford University press,

Pindyck, R. S. Rubinfeld, D.L. & Mehta, P.L. Microeconomics, Pearson Education

Sen, Anidhya, Micro-economic Theory, Oxford University Press, Delhi.

Ahuja H.L. Principles of Micro economics, S. Chand Limited, Delhi

ECO-001-SE-0010: Entrepreneurship Development

Minimum Contact hours: 45 hours
Total Credit: 03 (3L)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: This course has been designed to impart to the learners the knowledge related to the importance of entrepreneurship. Further, it aims to enhance their understanding with regard to entrepreneurial skills and competencies which are necessary for the creation of new ventures.

Course Outcome:

CO1. The learners will learn about the concepts of entrepreneur and entrepreneurship.

CO2. They will also gain knowledge about the procedure for establishing of a new enterprise.

CO3. The learners will acquire a better understanding about the different institutional support and services available in India for the entrepreneurs.

Module	Content	Contact Hours	CO
Module I	Entrepreneur and Entrepreneurship Entrepreneur: Definition, characteristics of entrepreneur, entrepreneur and manager, functions of entrepreneurs and types of entrepreneurs; Entrepreneurship: concept, role of entrepreneurship in economic development, factors affecting entrepreneurial growth, entrepreneurial motivation, entrepreneurial competencies and entrepreneurial mobility.	10	CO1
Module II	Establishment and Licensing Project identification and selection; project formulation; project appraisal: concept and method of project appraisal; financing enterprise; ownership structure: types of ownership and selection of an appropriate form of ownership; licensing – meaning and objective; Income tax, and goods and service tax (GST).	17	CO2
Module III	Institutional Support Institutional Finance to entrepreneurs- Industrial Finance Corporation of India, Unit trust of India, industrial development banks of India, Small Industries Development Bank of India and MUDRA bank; Institutional support to industries- National Small Industries Corporation Limited, Small Industries Development Corporation, Small Scale Industries Board, State Small Industries Development Corporations, Small Industries Service Institutes, District industrial centres and industrial estate; Made in India and Start-up India.	18	CO3

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	3	2	3	3	3	3	1	-	2	1	2	3	2
CO2	2	2	2	3	2	2	2	2	-	2	1	2	3	-
CO3	-	3	2	3	3	2	2	3	1	3	2	-	3	1
Average	1.67	2.33	2.0	3.0	2.67	2.67	2.33	2.0	0.33	2.33	1.33	1.33	3	1.0

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

RECOMMENDED READINGS:

Janakiram, B. and M. Rizwana (2011): Entrepreneurship Development: Text & cases, Excel Books publication.

Janakiram, B., P.V. Raveendra and V.K. Srirama (2010): Role and Challenges of Entrepreneurship Development, Excel Books publication.

Khanka, S. S. (2008): Entrepreneurial Development, S. Chand.

Kumar, S. A., S. C. Poornima, Mini K. Abraham, K. Jayashree (2003): Entrepreneurship Development, New Age International Publishers.

Lakhanpal, Ajay (1990): Entrepreneurial Development: An Institutional Approach, Commonwealth Publishers.

Ramachandran, K. (2010): Entrepreneurship Development: Indian Cases on Change Agents, Tata McGraw Hill.

Tiwari, Sanjay and Anshuja Tiwari (2007): Entrepreneurship Development in India, Sarup and Sons, New Delhi.

ECO-001-VA-0010: Computer Application

Minimum Contact hours: 45 hours
Total Credit: 02 (1L:1P)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: This course has been designed to impart to the learners the basic knowledge of computer application and use of internet.

Course Outcome:

1. The learner will acquire knowledge about the features of MS Office and creation of documents.
2. The learners will also learn about the internet, google account, google drive, google, form, google classroom and google meet.

Module	Content	Contact Hours	CO
Module I	MS Office MS Word-creating a new document, size and style of front, inserting table and diagram, page margin and layout, saving a file in different formats; Excel-data entry, graphs, diagrams, calculating mean, median, mode and standard deviation; PPT-creating a new ppt, inserting table, graph, diagram, date, time, header, footer and page number, designing, inserting hyperlink, audio and video clips.	22	CO1
Module II	Internet and Google Account Internet; E-mail; Opening a Google account; Google drive; Google form; Google document; Google classroom; Google meet.	23	CO2

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	2	2	2	3	2	1	2	1	2
CO2	2	1	1	-	2	3	2	2	2	2	1	2	1	2
Average	2.5	1.5	1.0	-	2.0	2.5	2.0	2.0	2.5	2.0	1.0	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:

Goel, Anita. Computer Fundamentals Publisher. Pearson. 2010

Rajaraman, V. and Niharika Adabala. Fundamentals of Computers. PHI. 2014

Johnson, Steve, Microsoft Office 2010 on Demand. Pearson. 2011

SEMESTER II

ECO-001-CC-1210: Macroeconomics-I

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

Learning Objective: This course has been designed to impart knowledge with regard to the various concepts of national income and the theories of macroeconomics to the learners.

Course Outcomes:

- CO 1.** The learners will acquire the knowledge about the different concepts of national income and its estimation.
- CO 2.** They will have a clear idea about the working of the Keynesian economics and its difference with the classical economics.
- CO 3.** The learners will be apprised as to how the monetary and the real sectors of the economy reach the equilibrium level simultaneously.
- CO 4.** They will also be able to analyse the theories of investment.

Module	Content	Contact Hours	Course Outcome
Module I	Determination of National Income Different concepts of National Income: GDP, GNP, NDP, NNP, per capita income; Personal income; disposable personal Income; Measurement of National Income, and its problems; national income and welfare.	10	CO1
Module II	Classical Economic Theory Classical macro concept and its implications, Say's law of market; classical production function, determination of wage rate: nominal and real; price level, Keynesian critique of classical concept of aggregate macroeconomic variable.	15	CO2
Module III	Keynesian Theory of Income, Employment and demand for money Theory of Effective Demand; Determination of Income and output; Underemployment Equilibrium; consumption and saving functions, Psychological Law of consumption; Investment Multiplier; Accelerator effect, Liquidity preference theory of demand for money.	20	CO3
Module IV	Keynesian and Classical Synthesis Equilibrium in the Real and Monetary sectors and the simultaneous equilibrium-IS-LM; Equilibrium Level of	15	CO4

	Income and Interest rate, shifts in IS and LM curves; Relative effectiveness of monetary and fiscal policies.		
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	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	3	2	1.5	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; 0: No Correlation]

Recommended Readings:

Ackley, G. *Macro Economics: Theory and Policy*, Macmillan, 1978.

Dornbush, R and S.Fischer- *Macro Economics*, Mc Graw Hill, New York

Gupta, S. B. *Monetary Economics*, S.Chand & Co. Ltd. Delhi, 1990.

Rana and Verma, *Macro-Economic Analysis*, Vishal Publications, 2000.

Dwivedi, D. N. *Macroeconomics*, Tata McGraw Hill Pvt. Ltd., (Latest edition).

Mankiw, N. Gregory, *Macro Economics* (Fourth Edition), Worth Publishers.

Ellor D'Souza, *Macroeconomics*, Pearson Education,

Allen, R. G. D. *Macro Economics Theory*, St.Martin Press, 1967.

Shapiro, Edward *Macro Economics Analysis*, Galgotia Publication, New Delhi, 1987

Branson, William H. *Macro-Economic Theory and Policy*, New Delhi Universal BoomStall

Sarkel, Jaydev, *Macro Economic Theory*, Book Syndicate, Kolkata.

Mankiw, N. Gregory *Macroeconomics*, Worth Publications, Macmillan, New York, 2020 (10th edition).

ECO-001-MC-1210: Elementary Macroeconomics

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

Learning Objective: This course has been designed to impart the knowledge with regard to the concepts of macroeconomics. It will deal with the national income accounting, classical and Keynesian economics, and concepts of consumption and investment.

Course Outcome:

CO 1. The learners will gain knowledge about the different concepts of national income accounting

CO 2. The learners will also learn about the determination of income, employment and output.

CO 3. They will also understand about the concepts of consumption and investment.

Module	Content	Contact Hours	CO
Module 1	National Income Accounting Nature, scope and limitations of macroeconomics; Concepts of national income: GDP, GNP, NNP, personal income, disposable income and per capita income; Estimation of national income: Final product method, value added method, Income method and expenditure method; problems of estimating national income in developing countries; national income and welfare.	10	CO1
Module II	Classical and Keynesian Economics Classical economics: basic assumptions, says law of market, determination of income employment and output in classical economics, classical quantity theory. Keynesian economics: assumptions, effective demand, aggregate demand and aggregate supply; determination of income and output under Keynesian economics.	15	CO2
Module III	Consumption Function Meaning of consumption; Average propensity to consume, marginal propensity to consume, Keynes' psychological law of consumption; factors affecting level of consumption.	20	CO3
Module IV	Investment Function Meaning of investment, Keynesian theory of investment; concept of multiplier; accelerator principle.	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	-	1	-	-	2	2	1	1
CO2	2	1	1	1	1	1	-	1	1	-	2	2	1	1
CO3	2	2	2	1	2	1	-	-	-	-	2	2	1	1
CO4	2	2	2	1	2	2	-	1	-	-	2	2	2	1
Average	2.25	1.75	1.5	0.75	1.5	1.25	-	0.75	0.25	-	2	2	1.25	1

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

Recommended Readings:

Ackley, G. (1978). Macro Economics: Theory and Policy. Macmillan.

Allen, R. G. D. (1967). Macro Economic Theory. St. Martin's Press.

Branson, W. H. (Year). Macro-Economic Theory and Policy. Universal Book Stall.

Dornbusch, R., & Fischer, S. (Year). Macro Economics. McGraw-Hill.

Gupta, S. B. (1990). Monetary Economics. S. Chand & Co. Ltd.

Rana, K. C., & Verma, K. N. (2022). Macro Economics. Vishal Publication.

Sarkel, J. (2018). Macro Economic Theory. Book Syndicate.

Shapiro, E. (1987). Macro Economics Analysis. Galgotia Publications.

Vaish, M. C. (Year). Monetary Theory. Vikas Publishing House.

ECO-001-MD- 1210: Economic Theory-II

Minimum Contact hours: 45 hours Total Credit: 03 (3L) Internal Assessment: 20 marks End Semester Exam: 80 marks Full Marks: 100
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Learning Objective: This course has been designed to impart knowledge with regard to the various concepts of macroeconomics, public finance and international trade

Course Outcome:

- CO1. The learners will acquire the knowledge about the different concepts of national income and its estimation.
- CO2. The learners will acquire the knowledge about the money and banking.
- CO3. The learners will have a clear idea about public economics.
- CO4. They will have a clear idea about basic concepts of international trade.

Module	Content	Contact Hours	CO
Module I	National Income Nature, scope and limitations of macroeconomics; Concepts of national income: GDP, GNP, NNP, personal income, disposable income and per capita income; Estimation of national income: Final product method, value added method, Income method and expenditure method; problems of estimating national income in developing countries; national income and welfare.	10	CO1
Module II	Money and Banking Barter economy and money economy, functions of money. Meaning and functions of Commercial banking, Central bank and its functions. Meaning and types of inflation, causes of inflation: demand pull and cost push; effects of inflation on different sections of the society; techniques of control of inflation.	10	CO2
Module III	Public Finance Meaning of fiscal and monetary policy; Government expenditure: revenue expenditure and capital expenditure, Importance of government expenditure; Meaning of tax and non- tax revenue; Direct Tax: Meaning, advantages and disadvantages; Indirect Taxes: Meaning, advantages and disadvantages; Concept of goods and service taxes; Government Budget: Meaning, deficit and surplus budget; fiscal and revenue deficit; government Borrowing (Concept only)	13	CO3
Module IV	Concepts of International Trade Concept of absolute cost advantage and comparative cost advantage; terms of trade; concept of balance of trade and balance of payment; meaning of surplus and deficit in balance of payment;	12	CO4

	Foreign exchange rate: fixed and flexible exchange rate; Functions of WTO and International Monetary funds.		
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Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	1	2	3	2	3	2	2	3	3	3	2
CO2	2	3	1	1	1	3	2	3	2	1	2	1	2	1
CO3	2	3	2	3	3	2	2	3	2	2	2	3	2	1
CO4	3	2	2	2	2	1	2	3	2	1	3	2	3	2
Average	2.5	2.5	1.75	1.75	2.0	2.25	2.0	3.0	2.0	1.5	2.5	2.25	2.50	1.5

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

Recommended Readings:

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

Jha, R., Modern Public Economics, Routledge, London, 2009.

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

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

Rana and Verma, Macroeconomic Analysis, Vishal Publication, 2014

Dwivedi, D. N., Macroeconomics, TataMcGraw Hill Pvt. Ltd., (Latest edition).

Mishra and Puri, International Economics,

Salvatore, Dominick, International Economics, Weily India New Delhi.

ECO-001-SE-0020: Introduction to Data Analysis

Minimum Contact hours: 60 hours
Total Credit: 03 (2L:1P)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: The course introduces the learners to collection, presentation and analysis of data. It also discusses how data can be summarized and analysed for drawing statistical inferences.

Course Outcome:

- CO1. The learners will be introduced to important data sources that are available and will be trained in the use of the statistical software.
- CO2. The learners would also learn about the types of sampling design and also be able to identify the different sources of data for their research.
- CO3. The learners will be able to analyse data using excel and statistical software.

Module	Content	Contact Hours	CO
Module 1	Sources and Collection of Data Data source – Primary and Secondary, Methods of collection of Primary data, Various types of Secondary data for empirical verification, Sources of Secondary data, Precautions in the use of Secondary data	15	CO1
Module 2	Sample Design Sample Design – Population Census verses sample survey, Principal steps in sample survey, Types of sampling – Simple random, Systematic and Stratified sampling, 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	15	CO2
Module 3	Processing and Analysis of Data using Statistical software Analysis of Data using Excel and SPSS; Creation of Graphs, Tables, Bar and Pie Diagram, Arithmetic, Mean, Median and Mode, Standard Deviation, Measures of Dispersion, Simple Regression and Correlation analysis	30	CO1 CO3

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	1	1	-	2	2	1	-	3	2	2	2	2	1
CO2	3	1	2	1	-	1	1	2	3	2	2	2	1	1
CO3	2	1	-	-	1	2	2	2	3	1	2	2	2	2
Average	2.67	1.0	1.0	0.33	1.0	1.67	1.33	1.33	3	1.67	2.0	2.0	1.67	1.33

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

Recommended Readings:

Outhwaite, William & Stephen P Turner (ed.). The Sage Handbook of Social Science Methodology, London: Sage, 2007.

Guthrie, Gerard, Basic Research Methods: An Entry to Social Science Research, London: Sage, 2010

Ghosh, B N. Scientific Methods and Social Science Research, New Delhi, 1987.

Johnston, J. Econometric Methods, New Delhi: McGraw – Hill (latest edition).

Kumar Ranjit, Research Methodology: A Step-by-Step Guide for Beginners, Delhi: Pearson, 2007 (2nd edition).

Krishnaswamy, O.R. Methodology of Research in Social Sciences, Himalaya Publishing House, 1993.

Wilkinson and Bhandarkar, Methodology and Techniques of Social Research, Himalaya Publishing House.

Kothari R.C., Research Methodology, Methods and Techniques, New Age International Publishers, IInd revised edition, reprint 2008.

ECO-001-VA-0020: Ecotourism

Minimum Contact hours: 30 hours
Total Credit: 02 (2L)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: The present course has been introduced to impart some basic knowledge of ecotourism and its significance for the economy and the environment to the learners, as ecotourism is fast emerging as a major segment of tourism industry.

Course Outcomes:

CO1. The learners will gain knowledge about the concept of ecotourism and its importance for sustainable development and for enhancing the livelihoods of local communities.

CO2. They will know about the ecotourism potentials of India and North East India, challenges of ecotourism in North East India and tourism policy of India.

Module	Content	Contact Hours	CO
Module 1	Introduction Definitions of ecotourism, Scope of ecotourism, ecotourism and nature-based tourism, ecotourism products, benefits of ecotourism, challenges in developing ecotourism. Ecotourism and sustainable development, ecotourism and local participation, employment generation, poverty alleviation, reduction in equality, foreign exchange earnings, revenue generation, infrastructure development, ecotourism and education.	15	CO1
Module 2	Ecotourism in India and North East India Ecotourism potentials of India and North East India, Need for ecotourism development in North East India, Challenges of ecotourism in North East India, Measures to promote ecotourism in North East India; Tourism policy of India.	15	CO2

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	2	2	2	1	2	2	2	1	3	2
CO2	2	1	-	3	1	2	-	2	3	2	1	2	3	2
Average	2.5	1.5	0.5	2.5	1.5	1.5	1.0	1.5	2.5	2.0	1.5	1.5	3.0	2.0

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

Recommended Readings:

Buckley, R., Ecotourism: Principles and Practices, Cambridge University Press, Cambridge, UK, 2009.

Bhatt, Harish and B.S. Badan, Ecotourism, Crescent Publishing Corporation, New Delhi, 2006.

Rai, Suresh C., Ecotourism and Biodiversity Conservation, Nova Science Publishers Inc., New York., 2012.

Mitra, A. et al. (2003): Environment and Nature-Based Tourism – An Endeavour at Sustainability, Kanishka Publishers, New Delhi.

Lama, M., Ecotourism in North East India, Anshah Publishing House, New Delhi, 2014.

Ryan, Chris, Recreational Tourism-Demand and Impacts, Viva Books Pvt. Ltd., New Delhi, 2006.

Sharma, Shaloo, Indian Tourism Today-Policies and Programmes, ABD Publishers, Jaipur, 2019.

Girish, Revathy, Ecotourism of India, Dominant Publishers and Distributors, New Delhi, 2016.

Singh, Sarvjeet, Ecotourism Development Management, A. K. Publications, New Delhi, 2009.

SEMESTER III

ECO-001-CC-2110: Microeconomics-II

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

Learning Objective: This course has been designed to impart knowledge of the basic concepts and theories of microeconomics to the learners.

Course Outcomes:

CO 1. The learners will learn about the problems of choice, concept of opportunity cost and the economic problems of developing countries.

CO 2. The learners will also know about the concept of utility, demand and supply analysis.

CO 3. They will acquire knowledge about the theories of production, concepts of cost and revenue.

CO 4. The learners will have a better understanding of the various forms of market in an economy.

Module	Content	Contact Hours	Course Outcome
Module I	Theory of Consumer Behaviour Preference; utility; budget constraint; Cardinal theory & Ordinal theory: Budget sets and Preferences under different situations; Indifference curves: Marginal Rate of Substitution and convexity of Indifference curve, Consumer's equilibrium; utility maximization; Engels curve, Derivation of demand curve, Income and substitution effects: Hicks and Slutsky equation; inferior, normal and Giffen goods; Revealed preference theory; strong and weak axiom; consumer surplus.	15	CO1
Module II	Theory of Producer Behaviour Technological Relationship between input and outputs, Production with single variable input: total, average and marginal product, Two variable inputs: Production Isoquants and the economic region of production; Marginal Rate of Technical Substitution and Elasticity of Substitution; The expansion path and return to scale; Effects of changes in input prices on output; Concept of production possibility curve.	15	CO2
Module III	Market Structure-I Market: Meaning, Classification; Perfect Competition- short run and long run equilibrium, Monopoly- equilibrium and absence of supply curve; price discrimination: first, second and third degree.	10	CO3

Module IV	Market Structure-II Monopolistic Competition: Assumptions, Product Differentiation, Advertising (Selling Costs), Concepts of the 'Industry' and the 'Group', Price-Output determination, Concept of Excess Capacity, Monopolistic Competition compared with Perfect Competition and Monopoly, Duopoly model; Cournot's Duopoly Model; Bertrand, Chamberlin and Stackelberg with an introduction to Game Theoretic model, The Kinked-Demand Model, Price Leadership Model, Collusive oligopoly; price and output determination under cartel.	20	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	0	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	3	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; 0: No Correlation]

Recommended Readings:

Koutsoyiannis, A., *Modern Micro Economics*, Macmillan Press, London, 1979

Varian, Hal R.: *Microeconomic Analysis*

Schaum's *Outline of Microeconomics*, (Schaum's Outline Series)

Domnick Salvatore., *Principles of Micro Economics*, Oxford, New Delhi.

Gregory Mankiw, N., *Principles of Macro Economics*, CENGAGE Learning, Australia.

Salvatore, D. *Microeconomics Theory and Applications*, Oxford University press,

Pindyck, R. S. Rubinfeld, D.L. & Mehta, P.L. *Microeconomics*, Pearson Education

Sen, Anindya, *Microeconomics, Theory and Applications*, Oxford University Press, 1999.

Sarkhel Jaydev, *Microeconomic Theory*, Syndicate Publishers Kolkata

Maddala G S, Miller Ellen M, *Theory and Applications of Microeconomics*, McGraw Hill Education India (Pvt) Limited

ECO-001-CC-2120: Mathematical Economics-I

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

Learning Objective: *To impart the knowledge of basic mathematical tools and its application in economics.*

Course Outcomes:

CO1: The learners will gain knowledge of coordinate geometry and binomial theorem.

CO2: The learners will learn about functions and its forms, limit and continuity.

CO3: They will also learn about differential calculus and some economic application.

CO4: They will also acquire knowledge of integral calculus and its economic application.

Module	Content	Contact Hours	CO
Module I	Coordinate Geometry and Algebra Two dimensional space - coordinates of a point ; distance between two points; coordinates of the mid-point of a line joining two points; equation of a straight line; equation of a circle in standard form; binomial theorem; exponential expansion	15	CO1
Module II	Set Theory and Forms, Limit and Continuity of Function Elementary set theory; relation and functions; different forms of function- constant, identity, linear, non-linear, homogenous and non-homogenous functions; limit of a function- right hand side and left hand side limits; continuity of a function	15	CO2
Module III	Differential Calculus Basic rules of differentiation; partial and total differentiation; economic application - elasticity of demand and supply function, derivation of marginal function (marginal revenue, marginal cost, marginal propensity to consume); concept of L-Hopital rule	15	CO3
Module IV	Integral Calculus Definition and types; indefinite integral- basic rules of integration, integration by substitution and by parts; application of indefinite integration - derivation of the total function from marginal function (total revenue, total cost, saving function, consumption function); definite integral and its properties; area under a curve; derivation of consumer's surplus and producer's surplus; concept of improper integral	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	1	2	3	-	3	1	2	2
CO2	1	2	-	1	2	2	1	2	3	-	3	1	2	2
CO3	1	2	-	1	2	2	1	2	3	-	3	1	2	2
CO4	1	2	-	1	2	2	1	2	3	-	3	1	2	2
Average	1.25	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	2.0	2.0

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

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

Mehta, B. C. and G. M. K. Madnani, *Mathematics for Economists*, Sultan Chand & Sons, New Delhi, 2009

Yamane, Taro, *Mathematics for Economists: An Elementary Survey*, PHI Private Limited, Delhi, 2013

ECO-001-MC-2110: Money and Banking

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

Learning Objective: This course has been designed to impart the knowledge with regard to the concepts of Money and Banking. It will deal with the definition and function of money, demand and supply of money, banking and inflation.

Course Outcome:

CO1. The learners will gain knowledge about the different concepts of Money

CO2. The learners will also learn about demand and supply of money.

CO3. They will also understand about commercial and central banks.

CO4. The learners will also learn about different aspects of inflation.

Module	Content	Contact Hours	CO
Module I	Money Barter and money economy; functions of money; Definition: M1, M2, M3 and M4; quantity theory: Cambridge and Fisherian versions	10	CO1
Module II	Money demand and supply Classical and Keynesian models of demand for money: Money supply and its components: currency and bank deposits, High powered money and money multiplier.	15	CO2
Module III	Banking Principles of Commercial banking- Bank's credit creation process; and credit multiplier. Central bank, functions of RBI; Functions of NABARD.	20	CO3
Module IV	Inflation Types of inflation, demand pull and cost push; inflationary gap; effects of inflation on production, distribution, and growth; measures of control of inflation.	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	1	1	2	1	-	-	-	-	2	2	1	1
CO2	2	2	1	1	2	1	-	-	-	-	2	2	1	1
CO3	3	2	1	1	2	1	-	1	-	-	2	2	1	1
CO4	2	2	1	1	2	-	-	1	-	-	2	2	1	1
Average	2.25	1.75	1	1	2	0.75	-	0.5	-	-	2	2	1	1

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

Recommended Readings:

- Gupta, S. B. Monetary Planning in India, Oxford University Press (latest)
- Decock, M. H. Central banking, 1943

Chandler, L.V. *The Economics of Money and Banking*, 1966

Allen, R.G.D. *Macro Economic Theory*, St. Martins Press, 1967.

S. Shikdar, S. (2018), *Principles of Macroeconomics*, Pearson Education India

ECO-001-MD - 2110: Basic Features of Indian Economy

Minimum Contact hours: 45 hours
Total Credit: 03 (3L)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: This course has been designed to impart knowledge with regard to the various concepts of economic development, poverty and the Indian economy to the learners.

Course Outcome:

- CO1. The learners will acquire the knowledge about basic features of Indian Population
- CO2. The learners will acquire the knowledge about agricultural and industrial development in India
- CO3. The learners will also learn about globalization and its impact on Indian Economy.

Module	Content	Contact Hours	CO
Module I	Features of Indian Population Demographi features- age and sex composition; poverty and unemployment; Concept of multi-dimensional poverty index and human development	8	CO1
Module II	Issues in Indian Agriculture Issues in Indian Agriculture: Green Revolution and agriculture policies of India, Meaning of multiple cropping and agricultural diversification, Concept of contract Farming; concept of land reforms.	12	CO2
Module III	Industrial Development Industrial Development in India: Large Scale, medium and small scale (MSME), and cottage industries, Role of Public sector enterprises in India, Role and performance of service sector in India.	15	CO2
Module IV	Economic Reform and Indian Economy Economic Reforms in India (1991) – structural adjustment and stabilization, fiscal reforms, reforms in industry, agriculture and trade; WTO and Indian agriculture.	10	CO3

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3	2	1	2	3	2	2	3	3	3	2
CO2	2	1	1	3	1	1	2	2	1	3	2	2	2	3
CO3	2	3	2	3	3	2	2	3	2	2	2	3	3	3
Average	2.33	2.0	1.67	3.0	2.0	1.33	2.0	2.67	1.67	2.33	2.33	2.67	2.67	2.67

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

Recommended Readings:

Misra, S. K. & Puri, V. K. Indian Economy, Himalaya Publishing House, Delhi (latest edition).

Dutt, R. & Sundaram, K. P. M. Indian Economy, S. Chand & Co. Delhi (latest edition).

Kapila, U. India Economy since Independence, Academic Foundation, New Delhi (latest edition).

Banik Nilanjan, The Indian economy-A Macro-Economic Perspective, Sage India (latest edition)..

Government of India, Economic Survey of India (various years), Ministry of Finance, New Delhi (latest edition).

ECO-001-SE-0030: Tourism Economics

Minimum Contact hours: 45 hours
Total Credit: 03 (3L)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: The present course has been designed to impart basic skills and knowledge of tourism economics to the students, as tourism is fast emerging as one of the major economic sector in the country.

Course Outcome:

CO1. The learners will gain knowledge about the concept and types of tourism.

CO2. The learners will understand the demand and supply of tourism, tourist products and their features as well as tourism capacity analysis.

CO3. The learners will acquire the skills related to tourism marketing, promotion strategies and also about SWOT analysis.

Module	Content	Contact Hours	CO
Module 1	Introduction Definitions of tourism, Types of tourism: adventure, medical, cultural, Ethnic, religious, rural tourism; moral v/s mass tourism, concept of sustainable tourism and ecotourism.	12	CO1
Module 2	Tourism Demand and Supply Tourism demand and its types, factors affecting demand for tourism, indicators of effective demand for tourism: travel propensity, gross travel propensity, net travel propensity, travel frequency, country potential generation index (CPGI). Tourism supply, tourist products: attraction, accessibility, destination amenities, ancillary services; features of tourist products, Butler's model of tourism and tourism carrying capacity	15	CO2
Module 3	Tourism Marketing and Promotion Concept of marketing, tourism marketing strategy, vertical and horizontal integration and tourism promotion, promotional events advertising, publicity and selling, Role of media in tourism promotion, Strength Weakness Opportunities and Threats (SWOT) analysis; tourism policy in India	18	CO3

Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3	2	2	2	2	1	2	3	2	3	2
CO2	3	1	2	3	2	2	2	2	-	2	2	2	3	-
CO3	2	3	2	3	2	2	1	1	-	2	3	2	3	1
Average	2.67	2.0	2.0	3.0	2.0	2.0	1.67	1.67	0.33	2.0	2.67	2.0	3.0	1.0

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

Recommended Readings:

Kamra, Krishna K., Economics of Tourism- Pricing, Impacts and Forecasting, Kanishka Publishers, Distributors, New Delhi, 2004.

Ryan, Chris, Recreational Tourism-Demand and Impacts, Viva Books Pvt. Ltd., New Delhi, 2006.

Tisdell, C. A. (ed.), Handbook of Tourism Economics, World Scientific Publications, Singapore, 2013.

Mitra, Amitava and Kunal Chattopadhyay., Environment and Nature-Based Tourism – An Endeavour at Sustainability, Kanishka Publishers, New Delhi, 2003.

Lama, M., Ecotourism in North East India, Anshah Publishing House, New Delhi, 2014.

Sharma, Shaloo, Indian Tourism Today-Policies and Programmes, ABD Publishers, Jaipur, 2019.

Kumar, Surinder, Economic Impact of Travel and Tourism, Sonali Publications, New Delhi, 2017.

Chawla, Romila, Tourism Marketing and Communications, Arise Publishers and Distributors, New Delhi, 2006.

Girish, Revathy, Ecotourism of India, Dominant Publishers and Distributors, New Delhi, 2016.

ECO-001-VA-0030: Indian Economic History

Minimum Contact hours: 30 hours
Total Credit: 02 (2L)
Internal Assessment: 20 marks
End Semester Exam: 80 marks
Full Marks: 100

Learning Objective: This course has been designed to impart the knowledge about the colonial history of Indian economy and the status of Indian agriculture and industry during the colonial period.

Course Outcome:

CO1. The learners will gain knowledge about nature and status of the colonial economy of India.

CO2. The learners will also learn about the land tenure system and the performance of Indian agriculture and industry during the colonial period.

CO3. The learners will have a better understanding about the evolution of railways and other transport and communication infrastructure as well as education and health during the colonial period.

CO4. The learners will also learn about the imperial priorities, drain of wealth and the government policies during the colonial period.

Module	Content	Contact Hours	CO
Module 1	Introduction Overview of colonial economy, National Income and resource drain during colonial period; population growth and occupational structure during colonial period. Colonial agrarian relation; agrarian structure and land relations; land tenure system; agricultural markets and institutions; Credit markets; Commerce and technology; famines in India-1876 and 1942.	15	CO1, CO2
Module 2	Industry and Infrastructure De-industrialisation debate, evolution of entrepreneurial and industrial structure; nature of industrialization in the interwar period; constraints to industrial breakthrough. Transport: Railways-evolution, significance and imperial objectives; road transport; inland water transport; air transport; Post and Telegraph; education and health during colonial period.	15	CO3, 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	3	1	2	2	2	2	1	3	2	-	1
CO2	3	3	1	3	1	1	1	1	2	2	3	2	-	1
CO3	1	3	1	3	1	2	2	2	2	1	3	2	-	1
CO4	2	3	1	3	1	1	1	1	2	1	3	2	-	1
Average	2.0	3.0	1.25	3.0	1.0	1.5	1.5	1.5	2.0	1.25	3.0	2.0	-	1.0

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

Recommended Readings:

Lakshmi Subramanian, History of India 1707-1857, Orient Blackswan, 2010.

SumitGuha, 1991, Mortality decline in early 20th Century India, Economic and Social History Review, pp. 371-74 and 385-87.

Tirthankar Roy, The Economic History of India 1857-1947, Oxford University Press, 3rd Edition, 2011.

J. Krishnamurty, Occupational Structure, in Dharma Kumar (Editor), Economic History of India, Vol. II, 2005.

Basudev Chatterjee, Trade, tariffs and Empire, Oxford University Press 1992.

K.N. Chaudhuri, CEHI, Chapter 10. Foreign Trade and balance of Payments, pp. 826-865, 869-877.

Jean Dreze, Famine Prevention in India, in Dreze and Sen (eds.) Political Economy of Hunger, WIDER Studies in Development Economics, 1990.

Report of First Finance Commission of India, 1951, Government of India.

Majumder, R. C., History and Culture of Indian People, Bhartiya Vidya Bhawan, 1951.

SEMESTER IV

ECO-001-CC-2210: Money and Banking

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

Learning Objective: This course has been designed to impart to the learners the knowledge about the concept of demand and supply of money and the working of the commercial and central banking system as well as about inflation and the different methods to control it.

Course Outcomes:

CO 1. The learners will understand about the concept and functions of money and monetary aggregates.

CO 2. The learner will also know about the financial institutions and their role in the economy.

CO 3. They will acquire knowledge about the theories of demand for and supply of money.

CO 4. They will learn about inflation, theories of inflation, methods of measuring inflation and measures to control inflation in an economy.

Module	Content	Contact Hours	Course Outcome
Module I	Concept of Money Money and its functions; narrow and broad definitions of money; Monetary aggregates-simple sum vs. weighted monetary aggregates, Divisia monetary aggregates; RBI's approach to monetary aggregates.	10	CO1
Module II	Central Bank and Commercial Banks Role and functions of Central bank; Instruments of monetary control; Bank rate, repo rate and reverse repo rates; functions of commercial banks; Process of credit creation by bank.	10	CO2
Module III	Demand and Supply of Money Classical money demand function; Tobin's portfolio selection; Baumol's transaction demand for money; Friedman's restatement of quantity theory of money. Inside money and outside money; Gurley-Shaw approach; Exogenous vs Endogenous concepts of money supply;	20	CO3
Module IV	Inflation Concept and types of inflation; Theories of inflation: Classical and Keynesian; Cost-push and Demand-pull inflation; Effects of inflation on consumers and producers; Methods of measuring inflation (CPI, WPI, Core and GDP	20	CO4

	deflator); stagflation; Measures to control inflation; Phillip's Curve.		
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	1	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	1	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	3	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; 0: No Correlation

Recommended Readings:

Blaug, Mark, *Economic Theory in Retrospect*, New Delhi, Vikas Publishing House, 1982.

Gupta, S B., *Monetary Planning in India*, Oxford University Press (latest edition)

Gupta, S.B., *Monetary Economics, Institutions and Policy*, S.Chand & Co. New Delhi, 1995.

Ackley, G. *Macro Economics, Theory and Policy*, MacMillian 1978.

Mueller, M G (ed.) *Readings in Macroeconomics*, Surjeet Publications, Delhi 1978.

S. Shikdar, S., *Principles of Macroeconomics*, Pearson Education India, 2018

Handa, J. *Macroeconomics*, Vrinda Publication, 2011

ECO-001-CC-2220: International Economics-I

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

Learning Objective: This course has been designed to impart knowledge of basic concepts and theories of international economics to the learners.

Course Outcomes:

CO1. The learners will gain knowledge about the causes of international trade and the concepts of terms of trade.

CO2. The learners will also learn about the methods of trade restrictions and the role of economic integration in trade promotion.

CO3. They will gain knowledge about the working of foreign exchange market and foreign exchange rate determination.

CO4. The learners will also acquire knowledge about the balance of payments and methods to correct BoP disequilibrium.

Module	Content	Contact Hours	Course Outcome
Module I	Theories of International trade Trade under mercantilism, Absolute and comparative cost Advantage theories, Harberler's Opportunity cost theory, Heckscher-Ohlin theorem and Leontief Paradox, Reciprocal and Offer Curve, Term of trade and Gain from trade.	15	CO1
Module II	Alternative Trade theories Availability Doctrine, Vent for Surplus, Product cycle hypothesis, Intra-industry Trade, Rybczynski Theorem, Immiserizing growth	15	CO2
Module III	Trade Policy Multilateralism versus Protectionism, Tariff and non-Tariff barriers, Vinerian Trade creation and Trade diversion, Theory of Regional trade Blocks, evolutions of European union.	15	CO3
Module IV	Balance of Payment and Foreign Exchange Market Balance of Trade and Balance of Payment, Corrective measures of Balance of Payment: Absorption Approach, Monetary Approach, Portfolio Balance Approach. Exchange rate determination: Gold Standard, Fixed and Flexible exchange rate, Purchasing Power Parity,	15	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	1	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	1	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	3	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; 0: No Correlation

Recommended Readings:

Cherunilam, Francis, *International Economics*, Tata Mc Graw Hill

Kindleberger, C.P. *International Economics*, Homewood, 1963

Mannur, H.G. *International Economics*, Vikas Publishing House Pvt. Ltd, Delhi

Ray, P.K. and K.B. Kundu, *International Economics*, Kolkata: Naba Bharat Publishers

Salvatore, Dominick, *International Economics*, Wiley India New Delhi.

Sodersten, Bo and Geoffrey Reed, *International Economics*, Macmillan, 1999

Kurgman, P.R *International Economics: Theory and Policy* 11th Edition, Pearson Education, 2017

Acharya, R., & Bhattacharya, S. *International Economics: An Introduction to Theory and Policy*. Oxford University Press, 2017.

ECO-001-CC-2230: Growth and Development Economics

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

Learning Objective: This course has been designed to impart knowledge about the concepts of economic growth and development, the various measures of development, the classical growth models, the theories of underdevelopment and the human capital approach to development.

Course Outcomes:

- CO 1.** The learners will be able to understand the basics of growth and development including its accounting, measurement and related concept.
- CO 2.** The learners will also have a working idea of the fundamentals of pre-classical, classical and classic theories of growth.
- CO 3.** The learners will gain knowledge about the reasons for underdevelopment and the various strategies of promoting development.
- CO 4.** The learners will also learn about the concept of sustainable development, human capital, dimensions of human development and inclusive growth strategy.

Module	Content	Contact Hours	Course Outcome
Module I	Introduction Concept of economic growth and development, its essence, accounting and measurement, Problems in measurement of Development, Obstacles to economic development, Concept of exogenous and endogenous Growth, Technical Progress: Embodied and Disembodied	10	CO1
Module II	Pre-Classical, Classical and Classic Growth Theories Pre-Classical perception of growth: Mercantile and Physiocratic, Classical views: Malthus, Smith and Ricardo, Classic growth theories: Schumpeter and Marxian	15	CO2
Module III	Theories of Underdevelopment and Development Vicious circle of poverty, Nelson's low-level equilibrium trap, Myrdal's theory: Balanced versus Unbalanced growth – Big Push Theory, Nurkse's model, Hirschman theory, Lewis model	20	CO3
Module IV	Human Capital Approach to Development Concept of sustainable development, sustainable development goals, human capital formation, measuring human development – HDI, Growth and inequality, inclusive growth strategy and equity.	15	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	0	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	3	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; 0: 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, 2023.

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

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

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

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

ECO-001-CC-2240: Statistical Methods-I

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

Learning Objective: This course has been designed to impart knowledge with regard to the sources of data, sampling technique and basic statistical tools and methods of data analysis for the students.

Course Outcomes:

CO1: The learners will understand about the various sources and types of data and the methods of data collection.

CO2: The learners will be able to carry out data analysis using frequency table and graphs.

CO3: The learners will also learn about the different types of mean and other measures of central tendency and dispersion.

CO4: The learners will understand about the index number and its calculation.

Module	Content	Contact Hours	CO
Module I	Sources of Data and Sampling Sources of data - primary and secondary; methods of data collection; population and sample; sampling methods – simple random sampling, stratified sampling and systematic sampling	15	CO1
Module II	Frequency Distribution Tabulation of data and frequency distribution; graphical representation of data- bar diagram, pie diagram, histogram, frequency curve, cumulative frequencies, ogive	15	CO2
Module III	Measures of Central Tendency and Dispersion Measures of central tendency- arithmetic, geometric and harmonic means, median and mode; dispersion - range, mean deviation, quartile deviation and standard deviation; coefficient of variation.	15	CO3
Module IV	Index Number Index numbers- purposes, steps and problems in its construction; Laspeyres', Paasche's and Fisher's index; Time reversal test and factor reversal test; Fisher's index number as ideal index number; deflating, base shifting and base splicing	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	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.

ECO-001-MC-2210: Elementary Economic Development

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

Learning Objective: This course has been designed to impart knowledge to the learners about the various issues related to economic development, human development, poverty and inequality. It also deals with the issues related to environment, climate change and sustainable development. Further, it aims to impart some basic knowledge about international trade.

Course Outcome:

CO 1. The learners will have knowledge about the concepts of economic and human development.

CO 2. The learners will learn about the issues related to poverty and the linkages between inequality and economic growth.

CO 3. They will acquire a better understanding about linkages between environment, climate change and sustainable development.

CO 4. The learner will also have a clear idea about the basic concepts of international trade.

Module	Content	Contact Hours	CO
Module I	Concept and Measurement of Economic Development Economic Growth and Economic Development: Concept and Measurement; Human Development Approach: HDI; Capability approach to development; Structural Features of a Developing Economy: Demographic Characteristics, Occupational Structure, Institutional Features.	10	CO1
Module II	Poverty Absolute vs relative poverty; Definition and Measurement of poverty: Head count ratio and income gap ratio; Trends in poverty in India; Multi-dimensional Poverty; Poverty alleviation Policies in India.	15	CO2
Module III	Inequality and Development Inequality and Economic Growth: Inverted-U Hypothesis; Inequality, Income Distribution and Growth: Empirical Evidence- Picketty; Inequality and Redistributive Policies.	20	CO3
Module IV	Environment, Climate Change and Sustainable Development Economic Role of the Environment; Market Failure; Concept of sustainable development; Climate Change: Key Processes and Implications for Development, Mitigation and Adaptation Strategies; Millenniums development goals, Sustainable Development Goals (SDGs).	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	2	2	1	1	-	-	2	2	-	1
CO2	3	2	2	2	2	1	1	1	2	-	2	2	-	1
CO3	2	1	1	1	1	1	-	1	-	-	1	1	-	1
CO4	2	2	2	2	2	1	-	1	-	-	1	1	-	1
Average	2.25	1.75	1.75	1.75	1.75	1.25	0.5	1	0.5	-	1.5	1.5	-	1

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

Recommended Readings:

Ray, Debraj. Development Economics. Oxford University Press, Delhi. 2011. Peet, Richard, and Elaine Hartwick. Theories of development: Contentions, arguments, alternatives. Rawat Publications, Jaipur, 2015.

Hanley N, J.F. Shogern and Ben White, Environmental Economics in Theory and Practice, Macmillan, 1997.

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

Meier, Gerald M., Leading Issues in Economic Development. Oxford University Press New York, 2000.

Piketty, Thomas (2014), Capitalism in 21st Century, Harvard Business School Press.

SEMESTER V

ECO-001-CC-3110: Mathematical Economics-II

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

Learning Objective: *This course has been designed to impart the students about the knowledge of matrix algebra and optimization techniques.*

Course Outcome:

CO1: The learners will learn about the concepts of vector, matrix and its properties.

CO2: They will also learn about the unconstrained optimization and its economic application.

CO3: The learners will gain knowledge with regard to equality constraint optimization.

CO4: They will also acquire knowledge about the linear programming technique.

Module	Content	Contact Hours	CO
Module I	Vector and Matrix Definition of a vector, length of a vector, multiplication of a vector by a scalar, scalar product of two vectors; definition and types; matrix operation - addition, subtraction and multiplication; transpose of a matrix; determinants and its properties; minor and cofactor; rank of a matrix; adjoint of a matrix; matrix inverse and Cramer's rule	15	CO1
Module II	Unconstrained Optimization Maxima and minima-single explanatory variable; economic application- cost minimization, revenue maximization and profit maximization; maxima and minima-more than one explanatory variable; economic application - discriminatory monopoly and multi-product firm	15	CO2
Module III	Constraint Optimization Linear - Lagrange's multiplier method; economic application-consumer's equilibrium and producer's equilibrium; Non-linear programming- Kuhn Tucker condition	15	CO3
Module IV	Meaning, assumptions and uses of linear programming in economics; structure and formulation of a linear programming problem; transportation problem, diet problem and production problem; solution- graphical method and simplex method; problem of degeneracy; primal and dual (concept only)	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	1	2	3	-	3	1	2	2
CO2	1	2	-	1	2	2	1	2	3	-	3	1	2	2
CO3	1	2	-	1	2	2	1	2	3	-	3	1	2	2
CO4	1	2	-	1	2	2	1	2	3	-	3	1	2	2
Average	1.25	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	2.0	2.0

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

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

Mehta, B. C. and G. M. K. Madnani, *Mathematics for Economists*, Sultan Chand & Sons, New Delhi, 2009

Yamane, Taro, *Mathematics for Economists: An Elementary Survey*, PHI Private Limited, Delhi, 2013

ECO-001-CC-3120: Public Economics-I

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

Learning Objective: This course has been designed to impart knowledge with regard to the various concepts and theories of public finance to the learners.

Course Outcomes:

- CO 1.** The learners will gain knowledge about public goods, merit goods and market failures
- CO 2.** The learners will learn about the importance of public expenditure and its effects.
- CO 3.** The learners will also understand about the meaning of public revenue and public expenditure
- CO 4.** The learners will acquire knowledge about the role of fiscal policy.

Module	Content	Contact Hours	Course Outcome
Module I	Introduction Meaning and Scope of Public Finance; public and private finance; principles of maximum social advantage; public goods, private goods and merit goods, public good and market failure	10	CO1
Module II	Public Expenditure Meaning and Importance; classification of public expenditure, Canons of Public Expenditure; Effects of Public Expenditure on production and distribution of income.	15	CO2
Module III	Public Revenue Sources of Public revenue: tax and non-tax; Direct and Indirect tax, Value added tax (VAT), Goods and Services Tax (GST); Canons of Taxation; advalorem and specific tax; proportional, progressive and regressive tax; tax avoidance vs. tax evasion; impact and incidence of Tax.	20	CO3
	Budget and Public Debt		

Module IV	Meaning of public budget; Classification of budget-incremental and zero-based budget; Deficit in public budget-revenue deficit, fiscal deficit and primary deficit; Public debt: meaning, Sources and effects of public debt, Methods of redemption of debt.	15	CO4
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	1	1	2	1	0	1	2	2	2	3	3	2
CO3	3	2	1	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	3	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; 0: No Correlation

Recommended Readings:

- Atkinson, A.B. and J.E. Stiglitz, *Lectures on Public Economics*, Tata McGraw Hill, New York.
- Buchanan, J.M., *The Public Finances*, Richard D Irwin, Homewood, 1970.
- Choudhry, R.K., *Public Finance and Fiscal Policy*, Kalyani Publishers, New Delhi.
- Dalton, H., *Principles of Public Finance*, Allied Publishers, New Delhi, 1997.
- Gupta, J.R., *Public Economics in India*, Atlantic Publications, 2007.
- Jha, R., *Modern Public Economics*, Routledge, London, 2009.
- Lekhi, R.K. (2018). *Public Finance*. Kalyani Publishers.
- Mishra, B., *Economics of Public Finance*, Macmillan India Limited, New Delhi.
- Musgrave, R.A and P.B. Musgrave, *Public Finance in Theory and Practice*, McGraw- Hill Book Company.
- Singh, S.K. (2018). *Public Finance in Developed and Developing Countries*. S. Chand Publishing.

ECO-001-CC-3130: Introduction to Environmental Economics

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

Learning Objective: The syllabus has been developed to provide understanding about the importance of environment, values of environmental goods, environmental issues and policies, legislations and environmental conservation.

Course Outcomes:

CO 1. The learners will know about the components, characteristics and values of the environment as well as natural resources and their management.

CO 2. The learner will also learn about the various environmental issues at global and national level and the interlinkages between human health and environment.

CO 3. The learners will also learn about the policy and legislations for environmental protection.

CO 4. The learners will acquire knowledge about the need for environmental conservation and various methods for conservation of environment and environmental protection movements.

Module	Content	Contact Hours	Course Outcome
Module I	Environment and Natural Resources Components of environment; environment as public goods; values of environmental goods; classification of natural resources: Renewable and non-renewable resources; managing exhaustible resources; managing renewable resources.	10	CO1
Module II	Environmental Issues Global warming, green house effects, acid rain, deforestation and loss of biodiversity, Air pollution, pollution of water resources, waste (e-waste) management; Economics of climate change; human health and environment; WTO and environmental issues.	15	CO2
Module III	Environmental Policy and Legislations Policy instruments for environmental protection; Cost-benefit analysis of environmental regulations, International environmental Agreements: Kyoto Protocol, The Montreal Protocol and Paris Agreement, Environmental laws in India: Wildlife Protection Act, 1972, The Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981 and Environmental (Protection) Act 1986.	20	CO3
	Environmental Conservation		

Module IV	Need for conservation of environment, Methods of Environmental Conservation: Recycling and waste management, green marketing and clean technology, afforestation, environmental management system and environmental auditing; Environmental conservation programmes in India: National Afforestation Programme, National River Conservation Plan, National Water Mission, National Action Plan on Climate Change (NAPCC); Environmental protection movements in India: Chipko movement and Narmada Bachao Andolan.	15	CO4
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	2	2	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	2	3	1	0	1	2	2	2	3	3	2
CO3	3	2	2	3	2	2	2	2	2	2	3	3	3	3
CO4	3	2	2	3	3	2	2	3	2	2	2	3	3	3
Average	2.75	2	2	2.25	2.5	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; 0: No Correlation

Recommended Readings:

Hanley N, J.F. Shogern and Ben White, Environmental Economics in Theory and Practice, Macmillan, 1997.

Kolstad, C.D., Environmental Economics, Oxford University Press, New Delhi, 1999.

Dasgupta, Partha, The Control of Resources, Oxford University Press, New Delhi, 1982.

Pearce D.W., Environmental Economics, Longman, London, 1972.

Dasgupta, P.S. and G.M. Heal, Economic Theory and Exhaustible Resources, Cambridge University Press, Cambridge, 1985.

Kerr, J.M. et al (Eds.), Natural Resource Economics: Theory and Applications in India, Oxford and IBH Publication Co. Pvt. Ltd., New Delhi, 1997.

Bhattacharya, R.N. (Ed), Environmental Economics – An Indian Perspective, Oxford University Press, New Delhi, 2001.

Pearce, D.W., and R.K. Turner (1990): Economics of Natural Resources and the Environment, The Johns Hopkins University Press.

Asthana D. K., Meera Asthana (2019): A Textbook of Environmental Studies. S. Chand & Co Ltd.

ECO-001-CC-3140: History of Economic Thought

Total Credit: 2 (2L)
Minimum Contact Hours: 60
Internal Assessment: 20 Marks
End Semester Exam: 80 Marks
Full Marks: 100

Learning Objective: This course has been designed to impart the knowledge to the students about the evolution of different schools of Economic thought.

Course Outcomes:

- CO 1.** The learners will gain knowledge with regard to the ideas of mercantilism, physiocracy and Adam Smith.
CO2. They will also learn about the ideas and economic thoughts related to the theory of value, rent, theory of population and Say's law of market.
CO3. The learners will know about the concepts and principles of socialism and Marxian.
CO4. They will also acquire knowledge about the Arthasastra, the drain theory and the Gandhian model of thought.

Module	Content	Contact Hours	Course Outcome
Module I	Mercantilism, Physiocracy and Adam Smith Basic Principles of Mercantilism, balance of trade under mercantilism, evaluation of Mercantilism; Physiocracy: Quesnay's tableau economique, concept of natural order, product net, Taxation and Trade; Smith's Invisible hand, market and competition, labour theory of value, division of labour and accumulation and distribution of income.	15	CO1
Module II	Ricardo, Malthus and J.B. Say Malthusian Theory of Population, growth and its evaluation, Ricardian theory of value and rent, implication of Ricardian theory of rent, wages and profit, Debate of Ricardo & Malthus on Glut; Say's Law of Market and its limitation.	15	CO2
Module III	Socialism and Karl Marx Robert Owen and Proudon, their evaluation; Karl Marx: labour theory of value, surplus value, its origin, rate of surplus value, falling rate of profit, concentration of capital and crisis in capitalism and its collapse; Neo-Marxist Theories: Dependency Theory, World Systems Theory.	15	CO3
	Indian Economic Thought		

Module IV	Kautilay's Economics - Arthasastra; Modern Indian economic thought: Naoroji's Drain Theory; Ranade, Gokhle, Gandhi; relevance of Gandhian economic model in the present-day world; evaluation of Gandhian Model.	15	CO4
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	2	2	2	3	3	3
CO2	3	2	2	1	2	2	0	2	2	2	2	3	3	2
CO3	3	2	0	1	2	2	2	3	2	2	3	3	3	3
CO4	3	2	1	1	2	2	2	3	2	2	2	3	3	3
Average	3	2	1	1	2	2	1.25	2.50	2	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; 0: No Correlation

Recommended Readings:

Guide, C. & C. Rist, A History of Economic Doctrine, Cosmo Publications, 2020

Blaug, M. Economic Theory in Retrospect, Vikas Publishing House, Delhi.

Roll, Eric: A History of Economic Thought, Faber and Faber, London and Rupa, Delhi

Paul, R.R. History of Economic Thought, Kalyani Publications.

Honey, Lewis H. (1979) History of Economic Thought, Surjeet Publications, Delhi

Hajela, T.N. History of Economic Thought, Shiva Lal Agarwala, 1972

Bhatia, H. L. History of Economic Thought, Vikas Publishing House, Delhi, 2009.

Vohra, Munish, History of Economic Thought, Anmol Publications, Delhi, 2000.

Screpanti, Ernesto, and Stefano Zamagni. An outline of the history of economic thought. OUP Oxford, 2005.

Howard Michael Charles, and John Edward King A history of Marxian economics, volume II, Princeton University Press, 2014

Samuels, Warren J. "The present state of institutional economics." Cambridge Journal of Economics 19, no. 4 (1995): 569-590.

Peet, Richard and Hartwick, Elaine (2005) Theories of Development, Rawat Publications, Jaipur

ECO-001-MC-3110: Public Finance

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

Learning Objective: This course has been designed to impart knowledge with regard to the various concepts and theories of public finance to the learners.

Course Outcome:

CO1. The learners will gain knowledge about public goods and merit goods and government intervention.

CO2. The learners will learn about the importance of public expenditure, its effects and about the various theories of public expenditure.

CO3. The learners will also understand about the sources of public revenue and public budget.

CO4. The learners will acquire knowledge about the role of fiscal policy in maintaining economic stability.

Module	Content	Contact Hours	CO
Module I	Introduction Meaning and Scope of Public Finance; public and private finance; principles of maximum social advantage; public goods and its characteristics, private goods, merit goods; market failure and government intervention.	10	CO1
Module II	Public Expenditure Meaning and Importance; classification of public expenditure, Wagner's law of increasing State activities; Canons of Public Expenditure; Effects of Public Expenditure on production and distribution of income.	15	CO2
Module III	Public Revenue Sources of Public revenue: tax and non-tax; goods and services tax (GST); Canons of Taxation; Principles of Taxation: ability to pay and benefit approaches of taxation; proportional, progressive and regressive tax; impact and incidence of Tax; effects of Taxation on production.	20	CO3
Module IV	Budget and Public Debt Budget: Revenue and capital budget; incremental and zero-based budget; revenue deficit; fiscal deficit and primary deficit; Public debt: meaning, Sources and effects of public debt, methods of redemption of debt.	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	1	-	1	-	-	1	1	1	1
CO2	2	2	1	1	2	2	-	1	-	-	2	2	1	1
CO3	3	2	2	1	2	2	-	2	-	-	1	2	2	1
CO4	2	1	-	-	2	1	-	2	-	-	2	2	1	1
Average	2.25	1.75	1	0.75	2	1.5	-	1.5	-	-	1.5	1.75	1.25	1

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

Recommended Readings:

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, 1997.

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, 2009.

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

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

SEMESTER VI

ECO-001-CC-3210: International Economics-II

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

Learning Objectives: This course has been designed to impart advanced knowledge on the theories of international trade and policies.

Course Outcomes:

CO1. The learners will be able to understand how growth and technical progress influences international trade

CO2. The learners will also acquire knowledge about international trade and resource movement.

CO3. They will also learn how price and output behaves in an open economy.

CO4. The learners will also have a working knowledge on international liquidity and institutions.

Module	Content	Contact Hours	Course Outcome
Module I	Economic Growth and International Trade Factor growth and International Trade, Impact of Technical progress on trade, terms of trade and economic development.	10	CO1
Module II	International Resource Movement Welfare implications of International Capital Flows and labour migration, Mundel-Flemming Model under fixed and flexible exchange rate, fiscal and monetary policies for internal and external balance.	15	CO2
	Prices and output in open economy		

Module III	Aggregate demand and supply under fixed and flexible exchange rate, economic shocks and aggregate demand in open economies, effects of fiscal and monetary policies in open economy with flexible prices.	20	CO3
Module IV	International Liquidity and the World Monetary System Problems of International Liquidity, the rise of IMF, Structure and Operations of IMF, SDRs and the developing economies, International Monetary System, Off-shore banking.	15	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	2	2	2	3	3	3
CO2	2	2	2	1	2	2	0	2	2	2	2	3	3	2
CO3	3	2	0	1	2	2	2	3	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	2	1.25	2.50	2	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; 0: No Correlation

Recommended Readings:

- Bhagwati, J. (Ed.), *International Trade: Selected Readings*, Cambridge University Press, Massachusetts, 1981
- Cherunilam, Francis, *International Economics*, Tata McGraw-Hill Publishing Company Limited, New Delhi, 1999.
- Grable, J.O., *International Financial Markets*, Prentice Hall, New York, 1996.
- Kindleberger, C.P. *International Economics*, R.D. Irwin, Homewood, 1991.
- Mannur, H.G, *International Economics*, Vikash Publishing House, 1983.
- Meade, J.E, *Theory of International Economic Policy*, Oxford University Press, London, 1968.
- Meier, G.M., *The International Economics of Development*, Harper and Row, New York, 1968.
- Salvator, D, *International Economics*, Prentice Hall, Upper Saddle River, N.J. NewYork, 1997.
- Soderston, Bo, *International Economics*, The Macmillan Press Ltd., London, 1991
- Viner, Jacob, *Studies in the Theory of International Trade*, Harper and Row, New York

ECO-001-CC-3220: Development Economics

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

Learning Objective: The objective of this paper is to make the students aware of the sectoral and institutional aspects of development along with basic idea of planning in an economy. Finally, the students will learn about the economic development of nations.

Course Outcomes:

- CO1.** The learners will understand about the sectoral aspects of development like issues related to agricultural and industrial development
- CO2.** They will also know about the role of institutions in economic development.
- CO3.** The learners will also learn about the techniques of planning as well as plan models in India.
- CO4.** The learners will acquire knowledge about the strategy of development, political economy and role of foreign capital in economic development.

Module	Content	Contact Hours	CO
Module I	Sectoral aspects of Development Role of agriculture in economic development, barriers to agricultural development, problems of modernisation of agricultural in developing countries, designing an agricultural strategy, relationship between agricultural growth and industrialization, choice of techniques, appropriate technology and employment, terms of trade between agriculture and industry; Industrialization as driving force of growth; barriers to industrial development in developing countries.	15	CO1
Module II	Institutions and Economic Development Role of market, Market efficiency and Market Failure; Role of State in Economic Development; Predatory vs developmental States; The Washington Consensus: its critique, Issues of Good Governance. Community approach to development: Role of community and social capital in development, Market and Prisoner's dilemma; Critical evaluation of the social capital approach to development.	15	CO2
Module III	Development Planning Concept of economic planning, Rationale for planning in a developing economy, Input-output model (closed and open); Samuelson's substitution theorem, Hawkins-Simons condition; Plan models in India: Mahalanobis two-sector and four-sector models.	15	CO3

Module IV	Trade and Political Economy of Development	15	CO4
	Trade strategy of development: Import substitution and export promotion; Krueger's model of rent seeking society; Institutions and economic performance: Contribution of Stephen Knack and Philip Keefer; Foreign capital and development: Foreign direct investment (FDI), foreign institutional investment (FII), Foreign aid and economic development.		

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	2	2	2	3	3	3
CO2	2	2	2	1	2	2	0	2	2	2	2	3	3	2
CO3	3	2	0	1	2	2	2	3	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	2	1.25	2.50	2	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; 0: No Correlation

Recommended Readings:

- Baran, Paul, *Political Economy of Growth*, Monthly Review Press, New York, 1967.
- Behrman, S and T.N. Srinivasan, *Hand Book of Development Economics*, Vol- III, Elsevier, Amsterdam. 1995
- Chakravarty, S. *Development Planning: The Indian Experience*, Clarendon Press, Oxford, 1987
- Chenery, H and T.N. Srinivasan, *Hand Book of Development Economics*, Vol-I, II Elsevier, Amsterdam, 1995
- Higgins, B., *Economic Development*, W.W. Norton, New York, 1959.
- Meier, G, *Leading Issues in Economic Development*, Oxford University Press, New Delhi, 1990.
- Myrdal, G., *Economic Theory and Underdeveloped Regions*, Duckworth, London, 1957.
- Naqvi, Sayed Nawab Haaider , *Economics of Development-Towards Inclusive Growth*, Sage, New Delhi, 2015
- Roy, D., *Development Economics*, Oxford University Press, 1999.
- Thirwal, A.P., *Growth and Development*, Macmillan, London, 1999.
- Todaro, M.P., *Economic Development*, Longman, London, 1996.
- UNDP, *Human Development Reports*, Oxford University Press.(Various years)

ECO-001-CC-3230: Environmental Economics

<p>Total Credit: 4 (4L) Minimum Contact Hours: 60 Internal Assessment: 20 Marks End Semester Exam: 80 Marks Full Marks: 100</p>
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Learning Objective: The syllabus deals with the problems of valuation of environmental goods and designing of instruments and institutions for the management of environment.

Course Outcomes:

- CO1.** The learners will know about the linkages between the economy and the environment, causes of environmental degradation and different types of resources.
- CO2.** They learner will also learn about the values of environmental goods and methods of measuring the values of non-market environmental goods.
- CO3.** The learners will learn about the institutional and economic instruments to control environmental degradation.
- CO4.** The learners will also acquire knowledge about the impact of economic development on environment, concept of sustainable development and its indicators and measurement.

Module	Content	Contact Hours	Course Outcome
Module I	<p>The Economy and the Environment</p> <p>Nature and scope of Environmental Economics, components of environment, Interlinkages between the economy and the environment, Causes of environmental degradation, Market failure and its causes, Common Property Resources, Open Access and Tragedy of commons, Relationship between stock and growth of renewable resources.</p>	15	CO1
Module II	<p>Environmental Valuation</p> <p>Characteristics of environmental goods, values of environmental goods- use value and non-use value; Concepts of willingness to Pay and willingness to accept for compensation, Valuation methods- Contingent valuation method, Travel cost method and Hedonic pricing method.</p>	15	CO2
Module III	<p>Environmental Regulations and Policies</p> <p>Environmental regulations – Command and control and economic instruments; types of economic instruments; Mixed instruments; Coase’s bargaining solution and collective action; Macroeconomic policies and the environment.</p>	20	CO3
	<p>Environment and Development</p> <p>Environment-development trade-off (Environmental Kuznets Curve) - Population, poverty and environment - Trade and its</p>	15	CO4

Module IV	impact environment - Concept and indicators of sustainable development – Rules to sustainability, Measurements of sustainable development- Pearce-Atkinson measure, Concept of Green Accounting.		
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Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	2	2	2	3	3	3
CO2	2	2	2	1	2	2	0	2	2	2	2	3	3	2
CO3	3	2	0	1	2	2	2	3	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	2	1.25	2.50	2	2	2.25	3	3	2.75
Average	2.75	2	1	1	2	2	1.25	2.50	2	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; 0: No Correlation

Recommended Readings:

- Hanley N, J.F. Shogren and Ben White, Environmental Economics in Theory and Practice, Macmillan, 1997.
- Kolstad, C.D., Environmental Economics, Oxford University Press, New Delhi, 1999.
- Sankar, U. (Ed), Environmental Economics, Oxford University Press, New Delhi, 2001.
- Dasgupta, Partha, The Control of Resources, Oxford University Press, New Delhi, 1982.
- Fisher Antony, Resource and Environmental Economics, Cambridge University Press, 1981.
- Pearce D.W., Environmental Economics, Longman, London, 1972.
- Chopra, K. (1998), Valuation of Bio-diversity within Protected Areas: Alternative Approaches and a Case Study, Institute of Economic Growth, Delhi, 1998.
- Chopra, K., G.K. Kadekodi and K.N. Murty, Participatory Development: An Approach to the Management of Common Property Resources, SAGE, New Delhi, 1990.
- Dasgupta, P.S. and G.M. Heal, Economic Theory and Exhaustible Resources, Cambridge University Press, Cambridge, 1985.
- Kerr, J.M. et al (Eds), Natural Resource Economics: Theory and Applications in India, Oxford and IBH Publication Co. Pvt. Ltd., New Delhi, 1997.
- Bhattacharya, R.N. (Ed), Environmental Economics – An Indian Perspective, Oxford University Press, New Delhi, 2001.
- Pearce, D.W., and R.K. Turner (1990): Economics of Natural Resources and the Environment, The Johns Hopkins University Press
- Stavins, R.N (2000): Economics of the Environment, fourth edition, W.V. Noston and company, New York
- Field, B.C (2012): Natural Resource Economics: An Introduction, second edition, Levant Books, Kolkata
- Callan, S.J and J.M. Thomas (2000): Environmental Economics and Management: Theory, Policy and Application, second edition, The Dnyden Press, Orlando, Florida.
- Conrad, J.M (1999): Resource Economics, Cambridge university Press

ECO-001-CC-3240: Indian Economy

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

Learning Objective:

This paper intends to impart knowledge to the students on the contemporary issues in Indian economy.

Course Outcomes:

- CO1.** The learner will acquire knowledge on the trends in national income, employment and price behaviour in the post-independent period.
- CO2.** The learner will be trained on the nature and pattern in Indian agriculture and the structure of Indian Industry
- CO3.** The students will acquire knowledge on the physical and social infrastructure of Indian economy
- CO4.** The learner will know about the nature of the public finance and the importance of economic reforms on Indian economy

Module	Content	Contact Hours	Course Outcome
Module I	National Income, Employment and Price Behaviour National income – Trends in growth and structure, performance of different sectors. Employment and unemployment: Recent trends and estimates – Changing structure and emerging issues – Labour market reforms - Inflation: Recent trends in prices in India and its causes	15	CO1
Module II	Agriculture and Industry Agricultural performance: Growth and productivity - Economic reforms and their impact on agriculture – Agricultural policy — Institutional reforms. Evolution of Indian industries: An overview – Evaluation of industrial policies of 1948 and 1956 – PSUs: Performance and shortcomings – PSUs and disinvestment debate - Economic reforms and industry.	15	CO2
Module III	Infrastructure Physical infrastructure: Power, transport and communication – Financial infrastructure: Banks, Social infrastructure: Education and healthcare – Institutional infrastructure: Market - Financing infrastructure: Problems and policies.	15	CO3

Module IV	Public Finance and Economic Reforms Revenue and expenditure of central & state governments, public debt in India, Deficit financing in India: Consequences and policy suggestions, Rationale for economic reforms – Main components of structural reforms – Evaluation of structural reforms – WTO and Indian Economy – impact – FDI and FII in India.	15	CO4

Mapping of Programme Outcomes (POs)/ Programme Specific Outcomes (PSOs) with Course Outcomes (COs)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	2	2	2	2	3	3	3
CO2	3	2	2	1	2	2	0	2	2	2	2	3	3	2
CO3	3	2	0	1	2	2	2	3	2	2	3	3	3	3
CO4	3	2	1	1	2	2	2	3	2	2	2	3	3	3
Average	3	2	1	1	2	2	1.25	2.50	2	2	2.25	3	3	2.75

The Mapping Level Contribution between COs-POs/PSOs are Categorized as [3: High; 2: Medium; 1: Low; 0: No Correlation

Recommended Readings:

- Bardhan, P., *The Political Economy of Development in India*, Oxford University Press, New Delhi, 1999.
- Jalan, B., *The Indian Economy—Problems and Prospects*, Viking, New Delhi, 1992.
- Ahluwalia, I. J. and I. M. D. Little (eds.), *India's Economic Reforms and Development* (Essays in Honour of Manmohan Singh), Oxford University Press, New Delhi, 1999.
- Kapila, Uma (Ed.), *India's Economic Reforms*, Academic Foundation, New Delhi.
- Government of India, *Economic Survey* (Annual), Ministry of Finance, New Delhi.
- Parikh, K.S., *India Development Report – 1999-2000 and 2001-02*, Oxford University Press, New Delhi.
- Byres, T. J. (Ed.), *The Indian Economy: Major Debates Since Independence*, Oxford University Press, New Delhi, 1998.
- Dreze, J. and A. Sen, *India: Economic Development and Social Opportunities*, Oxford University Press.
- Dutt and Sundaram, (Latest edition) *Indian Economy*, S.Chand and Company, New Delhi.
- Mundle, S., *Public Finance: Policy Issues for India*, Oxford University Press, New Delhi, 1999.
- Mishra, S.K. & V.K. Puri *Indian Economy*, Himalayan Publishing House, Mumbai (latest edition)
- Kapila, Uma (ed) *Indian Economy Since Independence*, Academic Foundations, Delhi (latest edition)
- Parikh, K. (ed) *India Development Report* (Various years) Oxford University Press, New Delhi
- Government of India Economic Surveys Various years, New Delhi.

ECO-001-MC-3210: Issues in Indian Economy

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

LearningObjective: This course has been designed to impart knowledge about the basic features and issues related to the various sectors of the Indian Economy and also acquaint the learners about the policies and programs for economic and social development.

Course Outcome:

CO1. The learners will understand about the basic features and problems of Indian economy.

CO2. The learners will also learn about the status of Indian Agriculture and the problems associated with this sector.

CO3. They will acquire knowledge about the status of Indian Industry and its role in the economic development.

CO4. The learners will have a better understanding, of the rationale for introducing economic reforms in India.

Module	Content	Contact Hours	CO
Module 1	Basic features of Indian Economy Demographic features and age and sex composition of population, Problems of Poverty, Unemployment and Inflation.	10	CO1
Module II	Indian Agriculture Land reforms, Green Revolution and agriculture policies of India, Food Security-Public Distribution System, and Diversification of Agriculture- Contract Farming.	15	CO2
Module III	Industry and Service Sector Industrial Development in India, Industrial Policies of India- 1948, 1956, 1977, 1991; Large Scale, small scale and cottage industries, Performance of Public sector enterprises in India; service sector in India- road, Communication and Banking.	20	CO3
Module IV	Economic Reforms Rationale for Economic Reforms, Macroeconomic Reforms, Fiscal Adjustment and Stabilization, External Sector Reform.	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	2	2	-	2	-	-	1	2	1	1
CO2	2	2	1	1	2	1	-	-	-	-	2	2	1	1
CO3	2	2	-	1	2	1	-	2	-	-	2	2	2	1
CO4	2	1	1	1	1	1	-	-	-	-	2	2	1	1
Average	2	1.75	1	1.25	1.75	1.25	-	1	-	-	1.75	2	1.25	1

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

Recommended Readings:

Bank, N. (2015). The Indian Economy - A Macro-Economic Perspective. Sage India.

Dutt, R., & Sundaram, K. P. M. (Latest Edition). Indian Economy. S. Chand & Co., Delhi.

Government of India. (Various years). Economic Survey of India. Ministry of Finance, New Delhi.

Government of India. (Latest Edition). Handbook of Statistics of Indian Economy. Reserve Bank of India.

Kapila, U. (2022). India Economy since Independence. Academic Foundation, New Delhi.

Kapila, U. (2015). Indian Economy: Performance and Policy. Academic Foundation, New Delhi.

Misra, S. K., & Puri, V. K. (Latest editions). Indian Economy. Himalaya Publishing House, Delhi.

Sachs, J. D., Varshney, A., & Bajpai, N. (1999). India in the Era of Economic Reforms. Oxford University Press, New Delhi.

SEMESTER VII

ECO-001-CC-4110: Microeconomics-III

Minimum Contact hours: 60 hours

Total Credit: 4 (4L)

Internal Assessment: 20 marks

End Semester Exam: 80 marks

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

Course Outcome:

CO.1: the learner will learn about advance theory of utility maximisation

CO.2: they will have an understanding of certainty and asymmetric information situation in decision making

CO.3: they will learn about advance theory of firms.

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

Module	Content	Contact Hours	CO
Module I	Consumer 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
Module 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
Module 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
Module 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. Rubinfeld, D.L. & Mehta, P.L. Microeconomics, Pearson Education

ECO-001-CC-4120: Macroeconomics -II

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

Module	Content	Contact Hours	CO
Module 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
Module 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 Tinbergen’s target instruments rule.	15	CO2
Module III	Extension of Keynesian consumption function to long run, Relative and past income Hypothesis; Life Cycle Hypothesis; Permanent Income Hypothesis.	15	CO3
Module 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 (2008): *Macroeconomics*, fourth edition, Pearson Education

Mankiw, N. G (1992): *Macroeconomics*, fourth edition, Worth Publishers

Gordon, R.J: *Macroeconomics*, twelfth edition, PHI/Eastern Economy edition

Parkin, M (1989): *Macroeconomics*, tenth edition, Addison-Wesley Publishing Company, New York.

ECO-001-CC-4130: Public Economics-II

Minimum Contact hours: 60 hours

Total Credit: 4 (4L)

Internal Assessment: 20 marks

End Semester Exam: 80 marks

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

Course Outcome:

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

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

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

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

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

Module	Content	Contact Hours	CO
Module 1	Rationale for Government Intervention Role of government in economic activity: Allocation, distribution and stabilization functions, Musgrave's optimum budget model – demand and supply of Public goods, Externalities, market failure, causes of market failure in public goods, rationale for government intervention in provision of public and merit goods.	15	CO1
Module 2	Theories of Public Expenditure Reasons for growth of public expenditure, Wagner's law of increasing state activities – Wiseman-Peacock hypothesis, Lindhal's model – Samuelson's model – Paradox of voting in public expenditure.	15	CO2 CO3
Module 3	Theories of Taxation and Public Debt Ability to pay and benefit approaches of taxation; neutrality in taxation, Taxable capacity-absolute and relative and its determinants, shifting and incidence of tax under different market conditions. Public debt, burden of debt-money burden and real burden, Domar's approach to burden of public debt, management of public debt.	15	CO3
Module 4	Fiscal Policy and Fiscal Federalism Fiscal policy and its instruments, compensatory fiscal policy, balanced budget multiplier, Effectiveness of fiscal policy, Deficit financing: advantages and disadvantages. Fiscal federalism-Principles of division of financial resources in a federation – Horizontal and vertical imbalances – Role of Finance	15	CO4 CO5

	Commission, criteria of funds transfer from Centre to the States in India – Fiscal reforms in India.		
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Mapping of POs/ PSOs with Cos														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1	1	2	2	1	1	1	-	3	2	-	1
CO2	3	2	1	2	2	2	1	1	1	-	3	3	-	2
CO3	3	2	-	2	2	2	-	2	1	-	3	3	1	2
CO4	3	2	1	2	2	1	1	2	1	-	3	3	1	1
CO5	3	2	1	3	2	2	-	1	1	-	3	3	-	2
Average	3.0	2.0	0.80	2.0	2.0	1.8	0.6	1.4	1.0	-	3.0	2.80	0.40	1.75

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

Recommended Readings:

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

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

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

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

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

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

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

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

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

ECO-001-CC-4140: Statistical Methods-II

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

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.

Module	Content	Contact Hours	CO
Module 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
Module II	Moment and Probability Distribution Moments & moment generating functions; Skewness and Kurtosis; poisson distribution; binomial distribution; normal distribution	15	CO2
Module 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
Module 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

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	-	1	1	2	1	2	3	-	3	1	3	3
CO2	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO3	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO4	3	2	-	1	2	2	1	2	3	-	3	1	3	3
Average	3.0	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	3	3

Recommended Readings:

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

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

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

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

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

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

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

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

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

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

ECO-001-MC-4110: RESEARCH METHODOLOGY

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

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

Course Outcome:

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

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

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

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

Module	Content	Contact Hours	CO
Module I	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 and its problems, Identification of the economic problem to be researched – literature review.	10	CO1
Module 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
Module III	Hypothesis Testing Meaning of Hypothesis, Basic Concept concerning the testing of hypothesis, Procedure of Hypothesis Testing, Types of Errors in Hypothesis Testing; two tailed and one-tailed; Z test, t test, chi square test and F test.	20	CO3
Module IV	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

Reading List

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 VIII

ECO-001-CC-4210: Econometrics-I

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

Learning Objective: This course has been designed to impart the knowledge of basic econometric models, its estimation and related problems.

Course Outcomes:

CO1: The student will learn about the classical linear regression model.

CO2: They will learn the general linear regression model.

CO3: They will understand the problem of auto-correlation and heteroscedasticity and its implication.

CO4: the student will also learn about the problem of multicollinearity and errors in variables.

Module	Content	Contact Hours	CO
Module 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
Module II	General Linear Regression Model Assumptions and estimation, Properties of estimator; Coefficient of determination	15	CO2
Module 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
Module 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

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	-	1	1	2	1	2	3	-	3	1	3	3
CO2	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO3	3	2	-	1	2	2	1	2	3	-	3	1	3	3
CO4	3	2	-	1	2	2	1	2	3	-	3	1	3	3
Average	3.0	2.0	-	1.0	1.75	2.0	1.0	2	3	-	3.0	1	3	3

Recommended Readings:

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

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

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

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

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

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

ECO-001-DE-42010: Growth Economics

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

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

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

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

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

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

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

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

Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	3	-	2	2	1	1	2	2	1	3	2	1	3
CO2	3	2	-	2	2	2	2	3	3	2	3	3	-	3
CO3	3	2	-	2	1	2	1	3	2	-	3	3	2	2
CO4	3	3	-	2	2	1	1	3	2	1	3	2	1	2
Average	3.0	2.5	-	2.0	1.75	1.5	1.25	2.75	2.25	1.0	3.0	2.5	1.0	2.5

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

Recommended Readings:

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

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

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

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

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

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

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

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

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

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

ECO-001-DE-42020: Infrastructure Economics

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

Course OBJECTIVES:

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

Course Outcome:

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

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

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

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

Module IV	Social Infrastructure, Health and Education Organization and financing of supply of social services – Private vs. public sector financing – Debate about fixation of prices of social services. Education and economic growth – Approaches to educational planning: Rate of return and manpower balance approaches – The issues in education policy. Health dimensions of development – Determinants of health: Poverty, malnutrition, illiteracy and lack of information – Economic dimension of health care: Demand and supply of health care – Financing of health care and resource constraint.	15	CO3
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	3	2	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.

ECO -001-DE-42030: Indian Economic Thoughts

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

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

Course Outcome:

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

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

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

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

Module	Content	Contact Hours	CO
Module 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
Module 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
Module 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, Gandhi and Marx, principle of Sarvodaya (welfare of all), population and food problem	15	CO3
Module 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:	15	CO4

	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.		
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Mapping of POs/ PSOs with COs

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

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

Recommended Readings:

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

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

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

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

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

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

ECO-001-DE-42040: Financial Economics

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

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

Course Outcome:

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

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

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

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

Module	Content	Contact Hours	CO
Module I	Capital and Finance Corporate entity, sole proprietorship, partnership, joint stock company, limited liability, separation of ownership from control, conflicts of interests between shareholders and managers. Sources of finance: equity and loan, different types of shares: ordinary shares and preferential share; debentures and loans.	10	CO1
Module II	Cost of Capital Business Risk and Financial Risk, Cost of loan and equity: traditional view on loan finance, advantages and disadvantages of loan finance, Modigliani and Miller view of gearing (leverage), critical appraisal of Modigliani and Miller view.	15	CO2
Module III	Risk and Return Measurement of Risk, Portfolio risk, probability distribution of returns, systematic and unsystematic risk; diversification: risk and return in a portfolio. Utility theory, attitudes towards risk and expected value of return. Arrow- Pratt's measures of Absolute and Relative Risk Aversions.	20	CO3
Module IV	Portfolio Theory and Pricing of Capital Assets Selection of optimal portfolio, efficient frontier, lending and borrowing; Sharpe's capital asset prices model; Capital asset pricing model	15	CO4

(CAPM): assumptions, derivation and empirical tests. Arbitrage asset pricing model; Portfolio revision and Portfolio evaluation.		
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Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	1	1	2	2	1	2	1	2	2	3	3	3
CO2	3	2	2	1	2	1	-	1	2	2	2	3	3	2
CO3	3	2	-	1	2	2	2	2	2	2	3	3	3	3
CO4	3	2	1	1	2	2	2	3	2	2	2	3	3	3
Average	2.75	2	1	1	2	1.75	1.25	2	1.75	2	2.25	3	3	2.75

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

Recommended Readings:

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

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

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

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

ZviBodie, Alex Kane and Alan J, Marcus, investments, 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

ECO-001-DE-42050: Institutional Economics

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

Course Objectives: To form a detailed view about current development of new institutional theory, about main instruments and approaches. Further to develop competences, which allow to implement the methodology of new institutional economics towards solving practical problems.

Course Outcomes:

CO 1. Learners will have information about different concepts of institutional economics.

CO 2. Learners will have knowledge about how different institutions affect the transaction costs in a economy.

CO 3. Learners will know about different aspects of contract theories.

CO 4. Learners will know about different aspects of property rights.

Module	Content	Contact Hours	CO
Module 1	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
Module 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	15	CO2

	transformation. North-Eggertsson classification of transaction costs. Transaction goods. Measurement costs. The role of networks in institutional analysis. Evolutionary model of convention formation in different structures. Basic measures: centrality, closeness, betweenness.		
Module III	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
Module 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=eds-live&db=edsbas&AN=edsbas.6EF0F9C3>

Economic behavior and institutions, Eggertsson, T., 1997

Furubotn, E. G., & Richter, R. (2005). *Institutions and Economic Theory: The Contribution of the New Institutional Economics* (Vol. 2nd ed). Ann Arbor: University of Michigan Press. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=edsbas&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=eds-live&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=edsbk&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>

ECO-001-DE-42060: Behavioural Economics

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

Course Objective:

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

Course Outcomes:

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

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

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

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

Module	Content	Contact Hours	CO
Module I	Introduction and Reference-Dependent Preferences Themes in psychology and economics- Illustration through examples; Kahneman/Tversky classic experiments; Prospect theory; Market implications: labor supply, marketing, industrial organization	15	CO1
Module 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
Module 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
Module IV	Firms' Reactions to Behavioral Consumers and Behavioural Finance	15	CO4

	The pricing of credit cards and mortgages; Shrouded attributes; Principles for intervention. Arbitrage and limits thereof; Market efficiency and economic efficiency; Small investors		
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Mapping of POs/ PSOs with COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	3	2	2	2	2	3	2	3	2	2	-	2
CO2	2	2	2	2	2	1	2	2	2	2	2	2	2	2
CO3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CO4	2	2	3	2	2	2	2	2	2	2	2	2	-	2
Average	2.0	2.0	2.5	2.0	2.0	1.75	2.0	2.25	2.0	2.25	2.0	2.0	1.0	2.0

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

Recommended Readings:

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

Daniel Kahneman, *Thinking Fast and Slow*. 45

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

David Just, *Introduction to Behavioural Economics*.

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

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

Richard Thaler, *The Winner's Curse*.

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

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

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

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

ECO-001-DE-42070: POPULATION ECONOMICS

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

Course Objective:

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

Course Outcomes:

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

Module	Content	Contact Hours	CO
Module I	Population Growth and Fertility Trends of population growth since the beginning of 20 th 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
Module 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 developing countries ; determinants of mortality; causes of high mortality in LDCs with special reference to India; measures taken in India to improve health status.	15	CO2
Module 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	15	CO3

	countries: its patterns and factors promoting urbanization in the developing countries with special reference to India; problems of urbanization in developing countries.		
Module 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*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ECO-DE-42080: GENDER AND DEVELOPMENT ECONOMICS

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

Module	Content	Contact Hours	CO
Module 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
Module 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
Module 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, 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.	15	CO3
Module 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	15	CO4

international bodies, governments and civil society institutions - Mainstreaming gender concerns: Methods and approaches.		
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Mapping of POs/ PSOs with COs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO1	2	2	1	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 New York, 1992.

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

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

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

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

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

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

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

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

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

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

Agarwal, B., 'Environmental Action, Gender Equity and Women's Participation', *Development and Change*, Vol 28, pp 1-44, 1997.

Boserup, Ester, *Women's Role in Economic Development*, St. Martin's Press, New York, 1970.

Krishna, Sumi, 'A "Genderscape" of Community Rights in Natural Resource Management', in Sumi Krishna (ed) *Livelihoods and gender: Equity in Community Resource Management*, Sage, New Delhi, 2004.

Shiva, V., *The Violence of Green revolution: Third World Agriculture, Ecology and Politics*, Third World Network, Penag, 1991.

Unni, Jeemol, *Women's Participation in Indian Agriculture*, Oxford and IBH Publishing Co, New Delhi, 1992

Agnihotri, S.B., *Sex Ratio Patterns in the Indian Population—A Fresh Exploration*. New Delhi: Sage, 2000.

Basu, A., 'Is Discrimination in Food Really Necessary for Explaining Sex Differentials in Childhood Mortality?' *Population Studies*, Vol. 43, No.2, pp. 193-210, 1989 .

Das Gupta, Monica, Lincoln C. Chen and T. N. Krishnan (Eds), *Women's Health in India: Risk and Vulnerability*, OUP, New Delhi, 1996.

- Dasgupta, Monica and P.N. Mari Bhat, 'Intensified Gender Bias in India: A Consequence of Fertility Decline', in M. Krishnaraj et 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 (Chapter 7: 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, No. 1, 1983.
- Harriss, B., 'The Intrafamily Distribution of Hunger in South Asia' in J. Dreze and A. Sen (Eds) *The Political Economy of Hunger, Vol. I*, Clarendon, Oxford, 1990.
- Kynch, J and A Sen, 'Indian Women: Well-being and Survival' *Cambridge Journal of Economics*, Vol 7, pp 363-380, 1983.
- Oxaal, Z. and Cook, S., 'Health and Poverty: A Gender Analysis.' BRIDGE Report No. 46, prepared for the Swedish International Development Agency. IDS, Brighton, 1998.
- Standing, H., 'Gender and Equity in Health Sector Reform Programmes: A Review', *Health Policy and Planning: A Journal on Health in Development*, Vol. 12, No. 1, Oxford University Press, Oxford, 1997.
- Sudha, S. and S. Irudaya Rajan., 'Female Demographic Disadvantage in India 1981-91: Sex Selective Abortions and Female Infanticide', *Development and Change*, Vol. 30, pp. 585-618, 1999.
- Ghosh, Jayati, *Globalisation, Export-Oriented Employment for women and Social Policy: A Case Study of India*. Paper prepared for the UNRISD project on Globalization, Export-Oriented Employment for Women and Social Policy. New Delhi, Jawaharlal Nehru University, 2001.
- Kabeer, N., 'Resources, Agency, Achievements: Reflections on the Measurement of Empowerment', *Development and Change* Vol. 30, No. 3, pp. 435-464, 1999.
- Mies, M., 'Gender and Global Capitalism' in Leslie Sklair (Ed), *Capitalism and Development*, Routledge, London and New York, 1994.
- Moser, C. O. N., Gender Planning in the Third World: Meeting Practical and Strategic Gender Needs. *World Development* Vol. 17, No. 11, pp. 799-1825, 1989.
- Standing, G., Global Feminization Through Flexible Labor: A Theme Revisited, *World Development*, Vol 27, No 3, pp 583-602, 1999.
- Tiano, S., 'Gender, Work and World Capitalism' in B B Hess and M Marx Ferree (Eds), *Analyzing Gender: A Handbook of Social Science Research*, Sage, Newbury Park, 1987.
- Unni, J., 'Gender and Informality in Labour Market in South Asia', *Economic and Political Weekly*, Vol. 34, No. 26, pp. 2263-73, 2001.

ECO-001-DE-42090: Game Theory

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

Learning Objective: *This course has been designed to impart the student extensive knowledge of game theory and its application in economic analysis.*

Course Outcomes:

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

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

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

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

Module	Content	Contact Hours	CO
Module 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
Module 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
Module III	The Extensive Form Games and Backward Induction The Extensive form; Perfect information game; Backward induction and its application	15	CO3
Module 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

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
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

ECO-001-MC-4210: RESEARCH PUBLICATION AND ETHICS

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

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

CO3. They will be informed about publication misconduct and violation of publication ethics.

CO4. They will be informed about predatory publishers and journals.

Module	Content	Contact Hours	CO
Module I	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
Module II	Ethics in Economics Adam Smith and the study of ethics; Sen's view on ethics in economics; Ethics and sustainable economy;	15	CO2
Module 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
Module 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.

ECO-001-RP-0010- Research Project

(For BA in ECONOMICS with Honours and Research)

Credit: 12 Contact Hours: 360 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.

Course Outcomes

CO1: Understand and comprehend the dynamic process of research plan and work.

CO2: Develop competencies and skill set necessary for being a researcher.

CO3: Ability to create new ideas for futuristic research work.

CO4: Inculcate an understanding of the Economics problems and type of methods to measure it.

Research Project

- The topic of the project work should be chosen within 15 days of commencement of the VIII 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-VIII.
- 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