DEPARTMENT OF ECONOMICS

SYLLABUS FOR FOUR YEAR UNDERGRADUATE PROGRAMME (FYUGP)

(FIRST – EIGHT SEMESTER)

Approved by Academic Council vide Resolution no. AC – 03/2024/05 Dated: 04 – 05– 2024 and AC – 06/2026/03 dated 28 – 02 - 2026

ARYA VIDYAPEETH COLLEGE (AUTONOMOUS)

ARYA NAGAR, GUWAHATI – 16

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PREFACE

“Education is not preparation for life; education is life itself.” —John Dewey

The aim of imparting education is not only to increase the knowledge but also to create the possibilities for a student to invent and discover. The purpose of this syllabus is to establish minimum basic concepts for each course to meet the needs of all our students. All the elements in this syllabus amalgamate to bring out the best in every student and enable them to be on the path of continuous progress.

The syllabus is framed based on Learning Outcome Based Education (LOCF) - the spirit of NEP, 2020.

The programmes offered by the college are:

i. Bachelor Degree in Arts
ii. Bachelor Degree in Science
iii. Bachelor Degree in Commerce

Under the above programme, the following courses are offered by the college:

i. Core Course
ii. Minor Course
iii. Skill Enhancement Course
iv. Interdisciplinary Course
v. Ability Enhancement Course
vi. Value Added Course

Programme outcome of each programme and Programme Specific Outcomes of each discipline/subject offered by the college is mapped with course learning outcome of each course. Graduate attributes of students obtaining Undergraduate Degree from the college are also incorporated in the syllabus.

The syllabus includes eight semesters where there will be 23Core Courses, 8 minor Courses, 3 SEC Courses and 3 IDC Courses. The total credit offered for eight semesters is 160.

The syllabus framed takes into account the different styles of learning – audio, visual and experiential. The syllabus correlates academics to real life situations balancing social and emotional stimulation among the students and imbibe human values. Also, the syllabus gives the opportunity for the theoretical knowledge to be pursued ensuring maximum application of it.

Structure of Four Year Undergraduate Course

Semester	Type	Core	Minor	SEC	IDC	AEC	VAC/FC	IN
	Credit	4	4	3	3	2	4(2 + 2)	2
I		CE-1114	MN-1114	SE-1113	ID-1113	AE-1112	VL-1112 (Two Courses)	-
II		CE-2114	MN-2114	SE-2113	ID-2113	AE-2112	VL-2112 (Two Courses)	-
III		CE-3214 CE-3224	MN-3214	SE-3213	ID-3213	AE-3212	-	-
IV		CE-4214 CE-4224 CE-4234	MN-4214	-	-	AE-4212	-	IN-4212
V		CE-5314 CE-5324 CE-5334 CE-5344	MN-5214	-	-	-	-	-
VI		CE-6314 CE-6324 CE-6334 CE-6344	MN-6214	-	-	-	-	-
VII		CE-7414* CE-7424** CE-7434** CE-7444** CE-7454**	MN-7314	-	-	-	-	-
VIII		CE-8414# CE-8424# CE-8434# CE-8444# CE-8454#	MN-8314	-	-	-	-	-

***Compulsory for all students in the 7th semester.**
****Students are required to choose any three courses from the remaining four core courses in the 7th semesters.**

 # Students who wish to pursue a Bachelor Degree with Honours must choose any four of the five core courses in the 8th semester.

NOTE: Students who secure a minimum of 7.5 CGPA at the end of the 6th semester (without any arrears) may opt for a Bachelor Degree with Honours and Research. Those students shall have to choose one core course out of the given five courses in the 8th semester and have to complete a Research Dissertation of 12 credits.

Course code:
- First two letters is the abbreviation of course component
- First digit implies semester number
- Second digit implies course level
- Third digit implies course number
- Fourth digit implies credit points per course.

Digit	Course Level
1	100 - 199
2	200 - 299
3	300 - 399
4	400 - 499

Semester Wise Credit Distribution

Semester	CREDIT DISTRIBUTION							
	CORE	MINOR	SEC	AEC	IDC	VAC/FC	IN	TOTAL
FIRST	1 x 4	1 x 4	1 x 3	1 x 2	1 x 3	2x 2	--	20
SECOND	1 x 4	1 x 4	1 x 3	1 x 2	1 x 3	2x 2	--	20
THIRD	2x 4	1 x 4	1 x 3	1 x 2	1 x 3	--	--	20
FOURTH	3x 4	1 x 4	--	1 x 2	--	--	1 x 2	20
FIFTH	4x 4	1 x 4	--	--	--	--	--	20
SIXTH	4x 4	1 x 4	--	--	--	--	--	20
SEVENTH	4x 4	1 x 4	--	--	--	--	--	20
EIGHT	4x 4	1 x 4	--	--	--	--	--	20

SEC: SKILL ENHANCEMENT COURSE

AEC: ABILITY ENHANCEMENT COURSE

IDC: INTERDISCIPLINARY COURSE

VAC/FC: VALUE ADDED COURSE

IN: INTERNSHIP

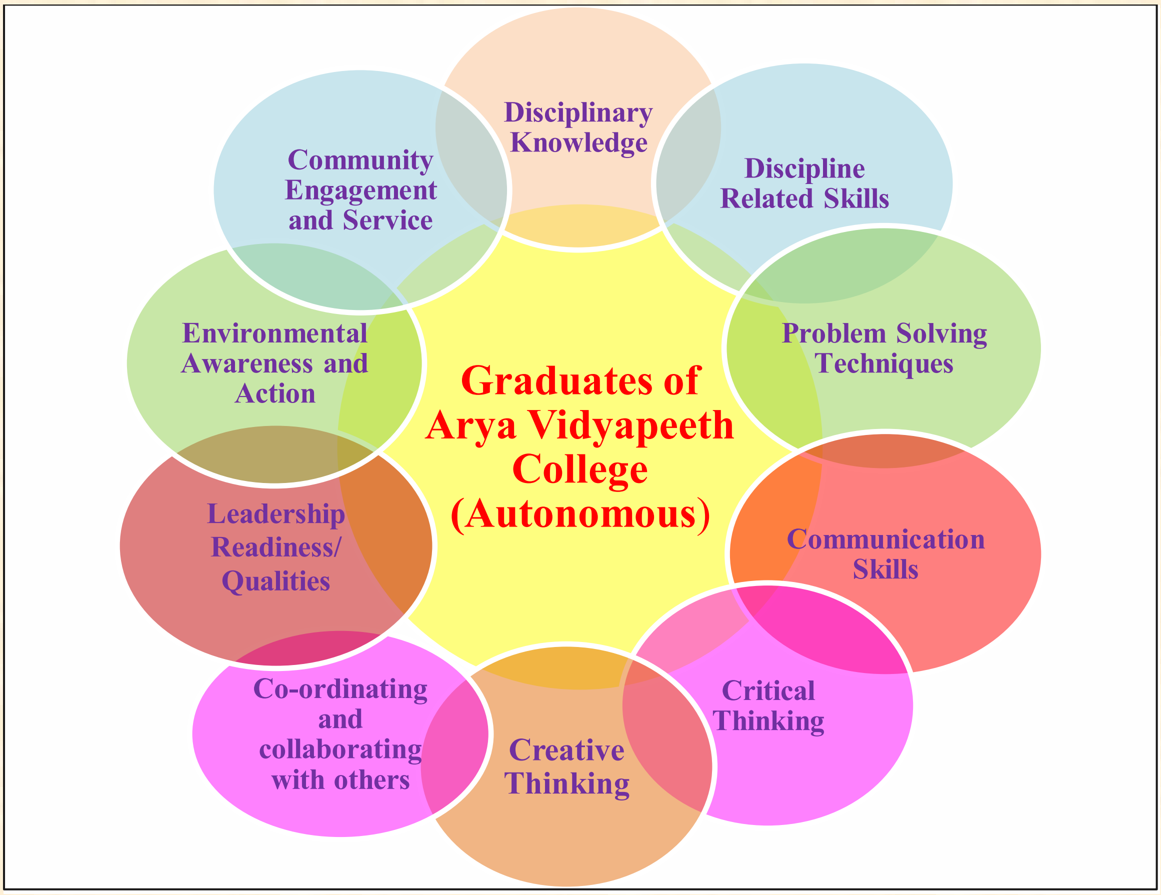
Abbreviation of Course Components:

CE (Core), MN (Minor), SE (Skill Enhancement Course), AE (Ability Enhancement Course), VL (Value added Course), ID (Interdisciplinary Course), IN (Internship)

GRADUATE ATTRIBUTES

Graduate Attributes:

Graduate Attributes are the qualities, skills and understandings that the students should develop during their time with the college. These attributes consequently shape the contribution they are able to make to their profession and society. They are the qualities that also prepare graduates as agents of social good in an unknown future. These attributes set them apart from those without a degree. The graduate attributes of Arya Vidyapeeth College (Autonomous) are:



Model of Graduate Attributes

1. **Disciplinary knowledge:** Graduates shall acquire comprehensive knowledge and understanding of their subject area, the ability to engage with different traditions of thought, and the ability to apply their knowledge in practice including in multi-disciplinary or multi-professional contexts.

2. **Discipline related skills:** Skills in areas related to specialization in the chosen disciplinary/interdisciplinary/major/minor area(s) of learning in a broad multidisciplinary context. In addition, create, select, and apply appropriate modern techniques, resources and IT tools.

3. **Problem solving skills:** A capacity for problem identification, the collection of evidence, synthesis and dispassionate analysis and apply one's learning in real – life situations.
4. **Communication Skills:** Ability to recognize and value communication as the tool for negotiating and creating new understanding, collaborating with others, and furthering their own learning.
5. **Critical thinking:** Graduates acquire the capacity for problem identification, collection of evidence, synthesis and dispassionate analysis. They also acquire the capacity for attentive exchange, informed argument and reasoning.
6. **Creative Thinking:** The graduates acquire an ability to create, perform or think in different and diverse ways about the same objects or scenarios and also the ability to communicate effectively for different purposes and in different contexts. They should also be able to work independently and as part of a team.
7. **Co-ordinating and collaborating with others:** The graduates need to possess the ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. They should also be able to work productively with others, no matter their culture, perspective or background, and complete joint projects and also to work in partnership.
8. **Leadership readiness/qualities:** The graduates should be able to lead and support others by inspiring them with a clear vision and motivating them to achieve goals. They also need to acquire ability to map out the tasks of a team or an organization and setting directions.
9. **Environmental Awareness and action:** The graduates shall earn the capacity to realize the individual's responsibility in protecting and conserving the environment. They need to gain the capacity to understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.
10. **Community engagement and service:** The graduates need to develop an understanding of social and civic responsibilities, and of the rights of individuals and groups. The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the wellbeing of the society which includes participation in NSS, NCC, adult literacy etc

UNDERGRADUATE PROGRAMME OUTCOME (PO)

BACHELOR DEGREE IN ARTS: (B.A.)

1. **APO-1 Critical Thinking:** Ability to analyse, synthesize and integrate knowledge. Capability to evaluate the validity of arguments and conclusion.
2. **APO-2 Effective Communication**: Proficiency in speaking, reading, writing and listening in English and one Indian language and find meaning of the world by connecting people, ideas, books, media and technology.
3. **APO-3 Social Interaction**: Link with society and intercede the disagreement and help to reach conclusion in group sitting. Demonstrate intellectual awareness and competencies. Reflect on one's cultural identities and values.
4. **APO-4 Effective Citizenship**: Promote active citizenship and community engagement. Ability to understand the national development, informed awareness of issues and participate in civic life.
5. **APO-5 Ethics:** Humanities education is designed in such a way that it lays particular emphasis on human values. Students on completion of the undergraduate degree will be better able to appreciate the literary and cultural diversity. It equips them to think critically about the issues of contemporary relevance and hold an informed opinion on them.
6. **APO-6Environment and Sustainability:** 'Environmental sustainability' has become the watchword of the 21st century. An increased engagement with environment related concerns is appearing tangibly on global fronts; academics cannot and should not remain quarantined from this massive development. Through classroom discussions and research projects, this programme facilitates active dialogues with factors which influence human-ecology interactions. As such, at the end of this programme students will be able to identify and analyze socio-political, cultural and economic problems which act as deterrents to environmental sustainability and provide creative solutions towards the same.
7. **APO-7 Life-long learning:** With the pursuit of knowledge for either personal or professional reasons, learners are also encouraged to volunteer and be self-motivated that not only enhances society values, active participation and personality development, but also enhances self-sustainability, competiveness and employability. As such, learners will be able to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in every broad context of technological changes.

8. **APO-8 Individual and team work**: Function effectively as an individual and as a member or leader of diverse teams and in multi-disciplinary settings.

9. **APO-9 Evaluate and conduct research**: Engage in scholarly inquiry to identify and investigate questions of a theoretical and applied nature which identify gaps and limitations in the existing literature, understand the principles of the research process, apply appropriate research methodologies to specific problems and develop intellectual independence and practices self-directed inquiry.

10. **APO-10 Depth of understanding**: Demonstrate detailed knowledge and perspectives across disciplinary boundaries. Develop a detailed understanding of the current state of knowledge in one or more disciplines. Recognise the value, use and limits of multi-disciplinary learning. Cultivate an openness to consider and engage alternative research perspectives.

11. **APO-11 Employability:** On graduating, the students will be eligible for employment in tourism, media, hospitality, and other industries. Students also become employable in non-governmental organizations. Their skills in comprehension of general social phenomena around them places them in ideal situation for such jobs. They will also be able to appear for competitive examinations

CORE

LIST OF COURSES:

Semester	Course Name	Course Code
1	Introduction to Economics I	EC – CE – 1114
2	Introduction to Economics II	EC – CE – 2114
3	Advanced Microeconomics I	EC – CE – 3214
	Advanced Macroeconomics I	EC – CE – 3224
4	Mathematical Methods for Economics-I	EC – CE – 4214
	Statistical Methods for Economics-I	EC – CE – 4224
	Development Economics I	EC – CE – 4234
5	Mathematical Methods for Economics-II	EC – CE – 5314
	Statistical Methods for Economics-II	EC – CE – 5324
	Indian Economy with special reference to the North East Economy	EC – CE – 5334
	International Economics	EC – CE – 5344
6	Banking and Financial System	EC – CE – 6314
	Basic Econometrics	EC – CE – 6324
	Environmental Economics	EC – CE – 6334
	Public Economics I	EC – CE – 6344
7	Research Methodology for Economic Analysis	EC – CE – 7414
	Advanced Microeconomics II	EC – CE – 7424
	Advanced Macroeconomics II	EC – CE – 7434

	Public Economics - II	EC – CE – 7444
	Advanced Mathematical Analysis for Economics	EC – CE – 7454
8	Advanced International Economics	EC – CE – 8414
	Demography	EC – CE – 8424
	Rural Development: An Indian Perspective	EC – CE – 8434
	Econometric Methods	EC – CE – 8444
	Development Economics II	EC – CE – 8454
	Dissertation	EC – DT – 812

Programme Specific Outcome of Bachelor of Arts – ECONOMICS: Core (PSO)

PSO No.	Outcome
PSO–1	Comprehend the basic concepts, ideas and theories of economics
PSO–2	Acquaintance with essential quantitative tools and their applications in economics
PSO–3	Develop critical thinking, analytical ability, quantitative skills, collaboration and other cognitive skills
PSO–4	Conceive, comprehend and evaluate economic policies and practices.
PSO–5	Apply quantitative or logical reasoning, aptitude and research for problem solving
PSO–6	Develop interest in pursuing higher studies in economics, including research
PSO–7	Capable of taking up careers in various sectors like banking, industry etc.
PSO–8	Develop entrepreneurial skills for self-employment
PSO–9	Enhance the awareness about the prevalent social issues
PSO-10	21st Century Skills

Course Learning Outcome (CLO) – Core

Semester	Course Name & Code	Course Learning Outcome (CLO)	
1	Introduction to Economics I EC – CE – 1114	CLO - 1	Understand and comprehend basic ideas of microeconomics, macroeconomics, public finance.
		CLO - 2	Develop the ideas of Indian economy and understand the basic issues related to development of Indian economy.
		CLO - 3	Understand and enhance the ability to analyze real micro and macroeconomic variables.
		CLO - 4	It will develop the basic ideas of public finance and hereby acquaint the learners with how an economy works with finance.
2	Introduction to Economics II EC – CE – 2114	CLO - 1	Understand and comprehend basic ideas of fundamental of statistics like measures of central tendency, measures of dispersion, index number..
		CLO - 2	Understand the basic ideas of development in global scenario and understand the basic measurements of growth and development used in the global context
		CLO - 3	Comprehend and enhance the basic knowledge of financial system so that working of the economy can be better understood.
		CLO - 4	It will develop the ideas of international trade and hereby acquaint the learners with how an economy works with other economies of the world.
3	Advanced Microeconomics I EC – CE – 3214	CLO - 1	Attain a better understanding of the Consumer's Behaviour and Producer's Behaviour
		CLO - 2	Understand and analyze Market Equilibrium, Input Market, General Equilibrium and Information Economics
		CLO - 3	Apply microeconomic concepts in real life situations.
	Advanced Macroeconomics I EC – CE – 3224	CLO - 1	Attain knowledge of macroeconomic equilibrium and income determination..
		CLO - 2	Understand important growth models in economics
		CLO - 3	Comprehend the factors determining investment and consumption in an economy.

3	Advanced Macroeconomics I EC – CE – 3224	CLO - 4	Understand the relationship between inflation and unemployment, and the role of expectations
4	Mathematical Methods for Economics-I EC – CE – 4214	CLO - 1	Identify various mathematical functions and their applications.
		CLO - 2	Interpret Mathematical outcomes in terms of economics.
		CLO - 3	Understand the applications of mathematical tools in economics
		CLO - 4	Acquire skills to interpret Economic theories in mathematical terms
	Statistical Methods for Economics-I EC – CE – 4224	CLO - 1	Understand and comprehend basic statistical tools and skills essential for economic decision making..
		CLO - 2	Develop a strong foundation on Probability Theory.
		CLO - 3	Understand the most common discrete and continuous probability distributions and their real life applications.
		CLO - 4	Analyze variable relationship and prediction using time series analysis
	Development Economics I EC – CE – 4234	CLO - 1	Understand the concept of economic development and underdevelopment and the factors responsible for the process.
		CLO - 2	Understand and analyze the theoretical foundations and strategic concerns of Development Economics and their relevance in the present
		CLO - 3	Analyze the challenges-inequality and poverty in the development process and their implications.
		CLO - 4	Assess the evolution of mainstreaming Environment into Development-Planning through Sustainable Development Goals (SDGs).
5	Mathematical Methods for Economics-II EC – CE – 5314	CLO - 1	Able to find solutions to unconstrained optimization problems by identifying relative and global maximum and minimum of single and multivariable functions.
		CLO - 2	Able to find solutions to constrainedoptimizationproblems using methods of substitution and Lagrange multiplier for both equality and inequality constraints.
		CLO - 3	Use integration and matrix algebra techniques in economic analysis.
		CLO - 4	Analyze difference and differential equations of first and second order.

5	Mathematical Methods for Economics-II EC – CE – 5314	CLO - 5	Understand economic model building by using mathematics
		CLO - 6	Solve economic problems using mathematical tools and interpret the results thus obtained and use in current and future policy making processes.
	Statistical Methods for Economics-II EC – CE – 5324	CLO - 1	Analyze variable relationship and prediction using correlation and regression
		CLO - 2	Understand the basic quantitative skills essential for economic analysis.
		CLO - 3	Comprehend the vital events based on the population studies, understanding birth, death process and life table combing demography data.
		CLO - 4	Acquire the basic knowledge of complete enumeration and sample.
		CLO - 5	Understand the basics of Sampling Methods and the different statistical sampling techniques.
	Indian Economy with special reference to the North East Economy EC – CE – 5334	CLO - 1	Understand the evolution of India economy and analyze the performance of the strategies in the pre-reform and the post-reform period
		CLO - 2	Evaluate the growth patterns in the key sectors of Indian economy.
		CLO - 3	Understand and comprehend the recent policy initiatives by GOI for making India self-reliant.
		CLO - 4	Analyze the indicators of development and the policies for developing North-East India.
	International Economics EC – CE – 5344	CLO - 1	Understand the analytical methods needed and comprehend how and when to apply different models and approaches to events in the world economy
		CLO - 2	Understand the intellectual and practical problems which arise from the economic interaction between countries.
		CLO - 3	Understand the international pattern of trade and specialization and the reasons why similar economies often trade more with each other than with dissimilar ones.
		CLO - 4	Acquire knowledge on terms of trade and gains from trade.
		CLO - 5	Comprehend the monetary sphere, the determinants of exchange rates; the analysis of the channels of international economic interdependence.

6	Banking and Financial System EC – CE – 6314	CLO - 1	Understand the structure and the working of the banking system
		CLO - 2	Analyze the monetary policy of central bank.
		CLO - 3	Able to assess the functioning of financialsystemand thereforms in the financial sector
	Basic Econometrics EC – CE – 6324	CLO - 1	Able to estimate linear models using ordinary least squares and makes inferences about population parameters.
		CLO - 2	Able to estimate parameters with simple OLSE and multivariable linear regression.
		CLO - 3	Identify the problems that arise due to violation of OLSE assumptions and find their remedies.
		CLO - 4	Understand the biases created through mis-specified models, such as those that occur when variables are omitted.
	Environmental Economics EC – CE – 6334	CLO - 1	Develop a comprehensive knowledge and understanding of the issues related to economy and environment.
		CLO - 2	Acquaint students with the issues related to market failure of environmental goods and the instruments which can prevent the damages of market failure of environmental goods.
		CLO - 3	Develop theoretical knowledge of resource economics so as to enable learners to understand as how an economy should use the natural resources in an optimum way, such that an economy can take up the path of sustainable development.
		CLO - 4	It will help in understanding the current dynamics of global environmental issues and concerns.
	Public Economics I EC – CE – 6344	CLO - 1	Understand the basic fiscal functions of the economy
		CLO - 2	Understand and analyze the different theories of efficient public goods provision
		CLO - 3	Comprehend the efficiency and equity aspects of taxation and public expenditure
		CLO - 4	Evaluate the different aspects and the implications of public debt
		CLO - 5	Examine the objectives of Fiscal Policy

6	Public Economics I EC – CE – 6344	CLO - 6	Evaluate the basics of Indian public finances, including recent tax structures
		CLO - 7	Examine the structure and pattern of government machinery in Kautilya's time
		CLO - 8	Understand the views of Kautilya on the aspects of financial and personal administration
7	Research Methodology for Economic Analysis EC – CE – 7414	CLO - 1	Develop a conceptual understanding and foundation related to Research Methodology and its various approaches.
		CLO - 2	Understand fundamental ethical principles guiding all research steps and apply honesty and integrity while doing research
		CLO - 3	Identify and provide a logical reasoning in the formulation of research problem, and the problems involved in systematic explanation of phenomenon
		CLO - 4	Develop Research Design based on multifarious approaches with quantitative and qualitative techniques for economic data analysis.
	Advanced Microeconomics II EC – CE – 7424	CLO - 1	Understand modern theories of the firm and managerial behaviour.
		CLO - 2	Analyze inter temporal decision-making under uncertainty.
		CLO - 3	Apply general equilibrium and welfare economics to policy and real-world markets.
		CLO - 4	Examine input markets, factor pricing, and income distribution.
		CLO - 5	Evaluate strategic market behaviour, including oligopoly, Cournot, Bertrand, and Stackelberg models.
	Advanced Macroeconomics II EC – CE – 7434	CLO - 1	Understand and comprehend the theoretical foundations of demand and supply of money and the factors determining it.
		CLO - 2	Attain the knowledge of economic growth models; identify the engines of growth and apply it in policy framework.
		CLO - 3	Analyse the business cycle models to understand causes of economic fluctuations and stabilisation policies.
		CLO - 4	Comprehend the knowledge of open economy macroeconomic variables and their interconnectedness and examine the effectiveness of policies in mitigating external shocks.

7	Public Economics II EC – CE – 7444	CLO - 1	Understand and analyse the fiscal functions of the Government
		CLO - 2	Understand the phenomenon of Public-goods and Market Failure
		CLO - 3	Evaluate the implications of public expenditure and public debt
		CLO - 4	Comprehend the various aspects of taxation
		CLO - 5	Analyse government budgeting processes and their role in economic policy
		CLO - 6	Understand Fiscal Federalism and intergovernmental transfers
	Advanced Mathematical Analysis for Economics EC – CE – 7454	CLO - 1	To learn mathematical methods those are essential for learning and working with economic theories and models.
		CLO – 2	To exposure of students to practical and theory and to provide them systematic tools of qualitative and quantitative data analysis to acquire this knowledge and skill.
		CLO - 3	To estimate and interpret Inter industrial relationships using Input-output analysis, also analyze maximization of profits and minimization of costs of the firms using Linear Programming method
		CLO - 4	Economic Applications of Differential Equations – Dynamic Multiplier – Harrod- Domar Model.
		CLO - 5	To find Particular Solution of Non-homogeneous Linear Equations – Linear First Order and Second Order Difference Equations with constant coefficients.
		CLO - 6	To Formulate LPP – Basic and Feasible Solutions – Graphical Solution – Simplex Method – Duality in Linear Programming – Elements of Data envelop Analysis and its Applications.
8	Advanced International Economics EC – CE – 8414	CLO - 1	Understand and apply advanced trade models to analyze patterns of trade and income distribution.
		CLO - 2	Examine the interrelation of trade, growth, and development in a globalized economy.
		CLO - 3	Evaluate strategic trade policies and protection instruments for welfare and industrial outcomes.
		CLO - 4	Comprehend international capital flows, exchange rate determination, and financial market interactions.
		CLO - 5	Analyze regional integration and emerging global economic challenges.
	Demography EC – CE – 8424	CLO - 1	Understand the scope, importance, and applications of demography in economic and social analysis.

8		CLO - 2	Explain classical and modern population theories and assess their policy implications.
		CLO - 3	Analyze fertility, fecundity, and nuptiality, and understand their determinants and measures.
		CLO - 4	Examine factors influencing mortality and maternal health.
		CLO - 5	Apply demographic techniques to population growth, projections, and composition analysis.
		CLO - 6	Analyze migration patterns, internal and international, and labor absorption in formal and informal sectors.
		CLO - 7	Assess population policies in India and globally and understand their economic relevances
	Rural Development: An Indian Perspective EC – CE – 8434	CLO - 1	Understand and comprehend the theoretical foundations of rural development.
		CLO - 2	Develop the idea about the historical evolution of rural governance in the colonial period and understand the role of institutions (e.g., Panchayati Raj), decentralisation, social capital, SHGs and NGOs in shaping rural development outcomes.
		CLO - 3	Use economic data to analyse the impact of strategies of rural development in diversifying rural livelihoods and stabilising socio-economic development.
		CLO - 4	Judge the efficacy of Government of India initiatives for rural development in addressing social, economic and environmental challenges in rural India.
		CLO - 5	Assess the impact of technological innovation in rural transformation.
	Econometric Methods EC – CE – 8444	CLO - 1	Acquire adequate competency in the frontier areas of economic theory and methods.
		CLO - 2	Formulate and estimation of a multiple regression model and analyze the impact of violation of various assumptions of OLSE.
		CLO - 3	Make decision about the statistical significance of individual explanatory variable and also over all models.
		CLO - 4	Interpret and critically evaluate applied Economic Research literature; demonstrate programming skills and numerical methods.

		CLO - 5	Apply methods learned to address policy and business decision questions.
8		CLO - 6	To develop self-employable ability and to apply knowledge for several Companies like Data analyst, Business Managers and other Researchers.
	Development Economics II EC – CE – 8454	CLO - 1	Explain the relationships among land, labour, and agricultural productivity, and assess the role of rural credit and microfinance in poverty alleviation and development. It also focuses on importance of development financing.
		CLO - 2	Evaluate the economic significance of health and education as forms of human capital, and apply cost–benefit techniques to assess their social and private returns.
		CLO - 3	Critically analyze how institutions, governance, and political systems shape development outcomes and mitigate or exacerbate corruption and government failure.
		CLO - 4	Examine the effects of trade liberalization, aid, and terms of trade on the growth and welfare of less developed countries using relevant theoretical frameworks.

MAPPING OF PROGRAME OUTCOME (PO) AND COURSE LEARNING OUTCOME (CLO)

Attributes: Co-relation Levels

“1” : Minimum Co-relation

“2” : Moderate Co-relation

“3” : Maximum Co-relation

“-” : No Co-relation

COURSE CODE	CLO	PROGRAMME OUTCOME										
		APO1	APO2	APO3	APO4	APO5	APO6	APO7	APO8	APO9	APO10	APO11
EC-CE-1114	CLO-1	3		2	3	2		3	3	2	3	
	CLO-2	3		3	3	2	2	2	2	2	3	
	CLO-3	3		2	2	2	2	2	3	3	3	
	CLO - 4	3		2	3	2		3	3	2	3	
EC-CE-2114	CLO-1	3			3	2		2		2	3	
	CLO-2	3	2	2	3	2	2	3		2	3	
	CLO-3	3	2	2	2	2		2		3	3	
	CLO - 4	3	2		3	2		3		2	3	
EC-CE-3214	CLO-1	3	2	2	2			3	2	2	2	2
	CLO-2	3	3	2	2			3	2	3	2	3
	CLO-3	3	3	2	3	2		3	2	3	2	3
EC-CE-3224	CLO-1	3	2	2	2			3	2	3	2	
	CLO-2	3			3			2	2	3	3	
	CLO-3	3	2	2	2			3	2	3	2	
	CLO - 4	3	2	2	3	2		2		3	2	2
EC-CE-4214	CLO-1	2	2	2	2			3	3	2	3	3
	CLO-2	3	2	3	3			3	3	3	3	2
	CLO-3	3	2	2	2			2	3	3	3	3
	CLO - 4		3	2	2	2	2	3	3	3	3	3
EC-CE-4224	CLO-1	3		2	3	2	1	3	2	3	3	3
	CLO-2	3		2	3	2	1	3	2	3	3	3
	CLO-3	3		2	3	2	1	3	2	3	3	3
	CLO - 4	3		2	3	2	1	3	2	3	3	3
EC-CE-4234	CLO-1	3		2	3	3		3		3	2	3
	CLO-2	3			2	2				3	3	2
	CLO-3			3	2	3	2			2	3	
	CLO - 4			3	3	3	3		2	3	3	
EC-CE-5314	CLO-1	3	2	2	2	2	2	3	3	3	3	3
	CLO-2	3	2			2		3	3	3	3	3
	CLO-3	3	2			2		3	3	3	3	3
	CLO - 4	3						3	3	3	3	3
	CLO - 5	3	3	2	2	2	2	3	3	3	3	3
	CLO - 6	3	3	2	2	2		3	3	3	3	3
EC-CE-5324	CLO-1	3		2	3	2	1	3	2	3	3	3
	CLO-2	3		2	3	2	1	3	2	3	3	3
	CLO-3	3		2	3	2	1	3	2	3	3	3
	CLO - 4	3		2	3	2	1	3	2	3	3	3
	CLO - 5	3		2	3	2	1	3	2	3	3	3

COURSE CODE	CLO	PROGRAMME OUTCOME										
		APO1	APO2	APO3	APO4	APO5	APO6	APO7	APO8	APO9	APO10	APO11
EC-CE-5334	CLO-1	3		2	3			2		3	3	2
	CLO-2	3			2			3	2	3	3	3
	CLO-3			2	3			3		2		3
	CLO - 4	3		3			2		2	3	3	2
EC-CE-5344	CLO-1	3	2	2	2			2	2	3	2	
	CLO-2	3	3	3	2	2		3	2	3	2	2
	CLO-3	3	3	3	2	2		3	3	3	3	2
	CLO - 4	3	2	2	2			2	3	3	2	
	CLO - 5	3	3	3	2	2		3	3	3	3	2
EC-CE-6314	CLO-1			2	3			3		2		3
	CLO-2	3		2	2			3	2	3	3	
	CLO-3				3			2	3	3	3	3
EC-CE-6324	CLO-1	3	2	2	2	2		3	3	3	3	3
	CLO-2	3	2	2	2	2		3	3	3	3	3
	CLO-3	3	2	3	2	3		3	3	3	3	3
	CLO - 4	3	2	3	2	3		3	3	3	3	3
EC-CE-6334	CLO-1	3		3	3	3	3	2	2	3	3	
	CLO-2	3			2	2	3	2		2	3	
	CLO-3	3		3	3	2	3	2	2	3	3	
	CLO - 4	3	2	3	3	3	3	2	2	3	3	2
EC-CE-6344	CLO-1	2		3	3	2	1	3	2	3	3	3
	CLO-2	3		3	3	2	3	3	2	3	3	3
	CLO-3	3		3	3	2	2	3	2	3	3	3
	CLO - 4	3		3	3	2		3	2	3	3	3
	CLO - 5	2		3	3	2	1	3	2	3	3	3
	CLO - 6	3		3	3	2	2	3	2	3	3	3
	CLO - 7	2	2	3	3	3		3	2	3	3	3
	CLO - 8	3	2	3	3	3		3	2	3	3	3
EC-CE-7414	CLO 1	3		1	3	4	3	3	4	4	4	4
	CLO 2	4	2	3	3	4	3	3	3	4	4	4
	CLO 3	3		2	3	3	3	3	3	4	3	3
	CLO4	4		1	2		2	3	3	4	3	3
EC-CE-7424	CLO 1	3	3	2	2	2	3	2	2	3	3	3
	CLO 2	3	3	2	2	3	2	2	3	3	3	3
	CLO 3	3	2	3	3	2	2	3	2	3	3	3
	CLO 4	3	2	3	3	2	2	2	2	3	3	3
	CLO 5	3	2	2	2	2	2	2	2	3	3	3
EC-CE-7434	CLO 1	2	2	2	3	2	2	3	2	3	3	3
	CLO 2	3	2	2	3	3	2	3	2	3	3	3
	CLO 3	3	2	2	3	3	2	3	2	3	3	3
	CLO 4	2	2	2	2	2	2	3	2	3	3	3
EC-CE-7444	CLO 1	3			3	2	3	3	2	3	3	3
	CLO 2	3			3	2	4	2	2	3	3	3
	CLO 3	3			3	2	2	2	2	3	3	3
	CLO 4	3			3	3	2	3	2	3	3	3
	CLO 5	3			3	3	2	2	3	3	3	3
	CLO 6	3			3	3	2	2	2	3	3	3
	CLO 1	3	2	2	2	2	3	3	3	3	2	3

EC-CE-7454	CLO 2	3	2	2		2	3	3	3	3	2	3
	CLO 3	3	2	2			3	2	3	3	3	3
	CLO 4	3	3	3	2	2	3	2	3	3	3	3
	CLO 5	3	3	2	2	2	3	3	2	3	3	3
	CLO 6	3	2	3	2	2	2	3	3	3	2	3
EC-CE-8414	CLO 1	3	3	2	2	3	3	2	2	3	3	3
	CLO 2	3	3	3	2	2	3	3	2	3	3	3
	CLO 3	3	2	3	2	2	3	2	2	3	3	3
	CLO 4	3	2	2	3	2	3	3	2	3	3	3
	CLO 5	3	3	2	3	3	2	2	2	3	3	3
	CLO 6	3	2	3	3	2	3	3	2	3	2	3
EC-CE-8424	CLO 1	3	2	3	2	2	3	2	2	3	3	2
	CLO 2	3	2	2	2	2	3	2	2	3	3	2
	CLO 3	3	2	2	3	2	3	2	2	3	3	2
	CLO 4	3	2	2	2	2	3	2	3	3	2	2
	CLO 5	3	2	2	2	3	3	2	2	3	3	2
	CLO 6	3	2	3	2	2	3	2	2	3	2	3
	CLO 7	3	2	2	2	2	3	2	2	3	3	3
EC-CE-8434	CLO 1	2	2	3	3	2	1	2	2	3	2	2
	CLO 2	2	3	3	3	2	2	2	3	3	2	3
	CLO 3	3	2	3	3	2	3	3	3	3	3	3
	CLO 4	3	3	3	3	3	2	2	2	3	2	2
	CLO 5	2	3	2	3	2	1	3	3	3	2	3
EC-CE-8444	CLO 1	3	3	2		3	2	3	3	3	3	3
	CLO 2	3	3		2	2	2	3	3	2	3	3
	CLO 3	3	3	2		3	3	3	3	3	3	3
	CLO 4	3	3	2	2		3	3	3	3	3	3
	CLO 5	3	3	2	2	2	3	3	3	3	3	3
	CLO 6	3	3		2	2	3	2	3	3	3	3
EC-CE-8454	CLO1	3	3	3	3	3	3	3	2	2	3	3
	CLO2	3	2	3	3	3	3	3	3	2	2	3
	CLO3	3	2	3	3	2	3	2	3	3	2	3
	CLO4	3	3	3	2	3	3	2	3	3	2	3

MAPPING OF PROGRAME SPECIFIC OUTCOME (PSO) AND COURSE LEARNING OUTCOME (CLO)

Attributes: Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

COURSE CODE	CLO	PROGRAMME SPECIFIC OUTCOME									
		PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PS10
EC-CE-1114	CLO-1	3		3	2	2	2	2	2		2
	CLO-2	3		3	2	3	3	3	2	3	3
	CLO-3	3		3		2	2		2	2	3
	CLO - 4	3		3	2	3	3	2	2	3	3
EC-CE-2114	CLO-1	3	3	3		3	2		2		3
	CLO-2	3		3	3	3	2			3	2
	CLO-3	3	2	2	2	2	2	2	2		3
	CLO - 4	3		2	2	2	3		2	2	3
EC-CE-3214	CLO-1	3	2	3		2	2			2	2
	CLO-2	3	2	3	2	2	2			2	4
	CLO-3	3	2	3	3	3	3		2	2	4
EC-CE-3224	CLO-1	3		3	2	3	3	2			2
	CLO-2	3	2	2	3	2	2			2	2
	CLO-3	3	2	3	2	3	3	2			3
	CLO - 4	3		2	3	2	2			2	3
EC-CE-4214	CLO-1	2	3	3		3	3	3	2		2
	CLO-2	3	3	3		3	3	3	2		4
	CLO-3	2	3	3		3	3	3	3		3
	CLO - 4	3	3	3	3	3	3	3	3	2	4
EC-CE-4224	CLO-1	3	3	3	3	3	3	3	3	2	3
	CLO-2	3	3	3	3	3	3	3	3	2	4
	CLO-3	3	3	3	3	3	3	3	3	2	3
	CLO - 4	3	3	3	3	3	3	3	3	3	4
EC-CE-4234	CLO-1			3	2	3	3		3	3	2
	CLO-2	3		2		3	2		3	2	3
	CLO-3	3		3	3		3		2	3	3
	CLO - 4				3		3	2	2	3	
EC-CE-5314	CLO-1	2	3	3		3	3	3	3		4
	CLO-2	2	3	3		3	3	3	3		4
	CLO-3	2	3	3		3	3	3	3		3
	CLO - 4	2	3	3		3	3	3	3		3
	CLO - 5	3	3	3	3	3	3	3	3	3	2
	CLO - 6	3	3	3	3	3	3	3	2	3	4
EC-CE-5324	CLO-1	3	3	3	3	3	3	3	3	3	4
	CLO-2	3	3	3	3	3	3	3	3	3	2
	CLO-3	3	3	3	3	3	3	3	3	3	3
	CLO - 4	3	2	3	3	3	3	3	3	2	4
	CLO - 5	3	3	3	3	3	3	3	3	2	3

COURSE CODE	CLO	PROGRAMME SPECIFIC OUTCOME									
		PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PS10
EC-CE-5334	CLO-1	3		2	3		3				2
	CLO-2	3			3		3	3	3		3
	CLO-3			2	3		3	3	3		3
	CLO - 4			3	3		2		3	3	3
EC-CE-5344	CLO-1	3		2	2	2	2			2	2
	CLO-2	3		3	2	2	3			2	2
	CLO-3	3		3	2	3	3			2	2
	CLO - 4	3		2	3	3	3				
	CLO - 5	3		3	2	3	3		2	2	2
EC-CE-6314	CLO-1	3		2	3		2	3	2		2
	CLO-2	3			3		2	3	2		3
	CLO-3	3		3	3		2	3	3		3
EC-CE-6324	CLO-1	3	3	3		3	3	2			3
	CLO-2	3	3	3	3	3	3	2		2	4
	CLO-3	3	3	3	3	3	3	2		2	3
	CLO - 4	3	3	3	3	3	3	2		3	4
EC-CE-6334	CLO-1	3		3	3	3	3			2	2
	CLO-2	3		2	2	2	3			3	4
	CLO-3	3		3	3	3	3			3	3
	CLO - 4	3		3	3	3	3		2	3	2
EC-CE-6344	CLO-1	3	1	3	3	3	3	3	2	3	2
	CLO-2	3	2	3	3	3	3	3	2	3	3
	CLO-3	3		3	3	3	3	3	2	3	2
	CLO - 4	3		3	3	3	3	3	2	3	4
	CLO - 5	3		3	3	3	3	3	2	3	3
	CLO - 6	3		3	3	3	3	3	2	3	4
	CLO - 7	3		3	3	3	3	3	2	3	3
	CLO - 8	3		3	3	3	3	3	2	3	2
EC-CE-7414	CLO 1	4	4	4	3	4	4	3	3	4	3
	CLO 2	3	4	4	3	4	4	3	3	3	4
	CLO 3	4	4	4	3	4	4	3	3	3	4
	CLO 4	4	4	4	3	4	4	3	3	4	4
EC-CE-7424	CLO 1	3	2	3	2	2	2	3	2	3	2
	CLO 2	3	3	2	2	3	2	3	2	3	3
	CLO 3	3	2	3	3	2	2	3	2	3	4
	CLO 4	3	2	3	3	2	2	2	2	3	2
	CLO 5	3	2	2	2	2	2	3	2	3	2
EC-CE-7434	CLO 1	3	2	3	3	2	2	3	2	2	2
	CLO 2	3	2	3	3	3	3	2	2	3	2
	CLO 3	3	2	3	3	3	3	3	2	3	3
	CLO 4	3	2	3	3	2	3	2	2	2	3
EC-CE-7444	CLO 1	4	2	3	4	3	3	3	2	3	4
	CLO 2	3	1	3	4	3	3	3	2	3	3
	CLO 3	3	1	3	4	3	3	3	2	3	4
	CLO 4	3	1	3	4	3	3	3	2	3	3
	CLO 5	3	1	3	4	3	3	3	2	3	4
	CLO 6	3	1	3	4	3	3	3	2	3	3
	CLO 1	3	3	3	2	3	3	3	3	3	3

EC-CE-7454	CLO 2	3	3	3	3	2	2	3	3	3	4
	CLO 3	3	3	2	2	3	3	3	3	3	4
	CLO 4	3	3	3	3	2	3	2	3	3	4
	CLO 5	3	3	2	2	2	3	3	2	3	3
	CLO 6	3	3	3	3	3	3	3	3	3	4
EC-CE-8414	CLO 1	3	3	2	2	3	3	3	2	3	2
	CLO 2	3	2	3	3	2	3	2	2	3	2
	CLO 3	3	2	3	2	2	3	2	2	3	2
	CLO 4	3	2	2	3	2	2	2	2	3	2
	CLO 5	3	3	2	3	3	2	2	2	3	3
EC-CE-8424	CLO 1	3	2	3	2	2	2	2	2	2	2
	CLO 2	3	2	3	3	2	2	2	2	2	2
	CLO 3	2	3	2	2	3	2	2	2	2	3
	CLO 4	2	2	2	3	2	3	2	2	2	3
	CLO 5	2	3	2	2	3	2	2	3	3	3
	CLO 6	3	2	3	3	2	3	2	2	3	3
	CLO 7	3	2	3	3	2	3	2	2	3	2
EC-CE-8434	CLO 1	3	2	2	2	2	3	2	3	3	2
	CLO 2	3	2	3	2	2	3	3	3	3	2
	CLO 3	2	3	3	3	3	3	3	3	3	4
	CLO 4	2	3	3	3	3	3	2	3	3	3
	CLO 5	2	2	3	3	3	3	2	3	2	3
EC-CE-8444	CLO 1	3	3	3	2	3	3	3	3	3	3
	CLO 2	3	3	2	2	2	3	3	3	3	4
	CLO 3	3	3	3	3	3	3	3	3	3	4
	CLO 4	3	3	2	2		3	3	3	3	4
	CLO 5	3	1	3	4	3	3	3	2	3	4
	CLO 6	3	1	3	4	3	3	3	2	3	3
EC-CE-8454	CLO1	3	3	3	2	3	3	3	2	2	2
	CLO2	3	3	3	3	3	3	3	2	2	3
	CLO3	3	3	3	3	3	3	3	2	3	4
	CLO4	3	3	3	3	3	2	3	2	3	3

COURSE NAME: Introduction to Economics I

COURSE CODE: EC – CE – 1114

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The course is designed to provide the students basic ideas of microeconomics, macroeconomics, public finance and Indian economy which will build the basic foundation of economics among beginners. The students will be encouraged to think like an economist and the course will illustrate as to how the concepts of microeconomics, macroeconomics, public finance and Indian economy can be applied to analyze real-life situations.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of microeconomics, macroeconomics, public finance.

CLO2: Develop the ideas of Indian economy and understand the basic issues related to development of Indian economy.

CLO3: Understand and enhance the ability to analyze real micro and macro economic variables.

CLO4: It will develop the basic ideas of public finance and hereby acquaint the learners with how an economy works with finance.

COURSE OUTLINE:

Unit I: Introduction: (Lectures: 10)

Problem of Scarcity and Choice: scarcity, choice and opportunity cost, production possibility frontier; Demand and Supply: law of demand, determinants of demand, shift in demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shift in supply versus movements along a supply curve, market supply, market equilibrium; Elasticity: price, income and cross elasticities.

Unit II: Consumer Theory: (Lectures: 08)

Concept of utility, Marshallian utility analysis, Diamond -water paradox, Indifference curves- its properties, derivation of demand curve from indifference curve, budget constraint; Consumer's equilibrium; price, income and substitution effects.

Unit III: **Revenue curves in different forms of market (Lectures: 04)**

Revenue: Concept of Revenues; Total, Average and Marginal Revenues, Market and its various forms, Revenue curves under perfect and imperfect competition.

Unit IV: **Introduction to Macroeconomics: (Lectures: 07)**

Definition, scope and subject matter of macroeconomics; National Income Accounting, Concepts of national income, methods and problems of calculating national income, nominal and real income; Green GDP; Circular flow of Income (In closed economy).

Unit V: **Public Finance: (Lectures: 08)**

Nature and scope of public finance; Basic concepts of Public Revenues, Definition of Tax, Direct and indirect taxes, Proportionate, Progressive and Regressive Taxation; Public expenditure and Public Debt.

Unit VI: **Indian Economy: (Lectures: 08)**

Characteristics of Indian economy; Indian Economy since Independence:Issues of Economic development- Rural development, human capital formation, poverty, unemployment; Basic demographic features- age, sex composition, density, urbanization, Work force and participation rate.

RECOMMENDED BOOKS:

1. N C Ray, Microeconomic Theory, MacMillan, 2000.
2. Dominick Salvatore, Microeconomic Theory, Schaum's Outline Series, McGraw Hill, 2001
3. H. L. Ahuja, Advanced Economic Theory, S Chand Publishers, 2017
4. Soumyen Sikdar, Principles of Macroeconomics, Oxford, 2020
5. A.N. Agarwal: Indian Economy - Problems of Development and Planning, New AgeInternational Publishers, 43rd edition, 2019
6. B. V. Pathak: Indian Financial System, Pearson Education, Singapore, 2018 fifth edition

COURSE NAME: Introduction to Economics II

COURSE CODE: EC – CE – 2114

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The course is designed to provide the students basic ideas of statistics like measures of central tendency, measures of dispersion, index number. It will also enable students to understand basics of development economics, international trade and financial system of Indian economy, which will build the basic foundation of economics among beginners. The students will learn to think like an economist and the course will illustrate how the concepts of statistics, development economics, international trade and financial system can be applied to analyze real-life situations.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of fundamental of statistics like measures of central tendency, measures of dispersion, index number.

CLO2: Understand the basic ideas of development in global scenario and understand the basic measurements of growth and development used in the global context.

CLO3: Comprehend and enhance the basic knowledge of financial system so that working of the economy can be better understood.

CLO4: It will develop the ideas of international trade and hereby acquaint the learners with how an economy works with other economies of the world.

COURSE OUTLINE:

Unit I: Basic Statistics :(Lectures: 15)

Collection of data- Sources of data, primary and secondary sources; methods of statistical enquiry- concepts of population and sample, Census and sample methods, population parameter and sample statistic

Measures of central tendency- Mean: Arithmetic mean (Simple and Weighted), Geometric mean, harmonic mean; Median, Mode.

Measures of Dispersion - Range, Inter-quartile deviation, mean deviation, standard deviation, variance

Unit II: Index Number :(Lectures: 08)

Meaning, Types and characteristics of Index Number; construction, uses and limitations of Index numbers; Consumer price index, cost of living index, industrial production index, agricultural production index, Sensex (concept only)

Unit III: **Introduction to Development Economics :(Lectures: 08)**

Economic growth and development, measuring development- Per Capita Income (PCI), Physical quality of Life Index (PQLI), Human Development Index (HDI), Measuring economic inequality- Lorenz Curve, Gini Coefficient; Concept of sustainable development

Unit IV: **Financial System :(Lectures: 07)**

Financial System- Definition, components and functions; Types of Financial System- formal and informal; Indian Financial System- an overview

Unit V: **International Trade :(Lectures: 07)**

Subject matter and scope of International Trade; distinction between internal and international trade; Classical Theories of International Trade- Absolute Advantage Model of Adam Smith and Comparative advantage Model of David Ricardo

RECOMMENDED BOOKS:

1. B. V. Pathak: Indian Financial System, Pearson Education, Singapore, 5th ed. 2019
2. Debraj Roy: Development Economics, 1999
3. Michael P.Todaro, Stephen C. Smith: Economic Development, 13th ed. 2020
4. Padmalochan Hazarika: Statistical Methods for Economics, Ashok book Stall, 2018
5. S.C. Gupta: Fundamentals of Statistics, Himalayas Publishing House, Seventh Edition, 2018
6. S.K.Misra, V K Puri: Economics of Development and Planning - Theory and Practice, Himalaya Publishing House, 2017
7. V.K.Puri and S.K.Mishra: Indian Economy, Himalaya Publishing House, 41st edition, 2023
8. Rana and Verma, International Trade, Kalyani Publishers, 2017

COURSE NAME: Advanced Microeconomics-I

COURSE CODE: EC- CE - 3214

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

This course is designed to provide students with a sound knowledge of microeconomic theory to formally analyze the behavior of individual agents. The emphasis will be on thinking like an economist and the course will help learners how to apply microeconomic concepts to analyze real life situations and find solutions. Since students have been taught both demand-supply systems and cardinal and ordinal utility analysis, so this course focuses on key pillars of microeconomics such as Information Economics, Production and Consumption, Market Equilibrium, Input Markets, General Equilibrium and Welfare Economics.

COURSE LEARNING OUTCOME:

CLO1: Attain a better understanding of the Consumer's Behaviour and Producer's Behaviour

CLO2: Understand and analyze Market Equilibrium, Input Market, GeneralEquilibrium and Information Economics

CLO3: Apply microeconomic concepts in real life situations.

COURSE OUTLINE:

Unit I: Consumer's Behaviour and Information Economics :(Lectures: 10)

Slutsky Equation, Review of Indifference Curve Analysis, Violation of the basic premises of Indifference Curve Approach: Lexicographic Ordering, Revealed Preference Approach : Strong and Weak Axioms of Revealed Preference.

Inter-temporal Choice, risk under choice; risk neutral, risk averse and risk lover, Expected Utility Hypothesis, Asymmetric Information, Adverse Selection and Moral Hazard, Externalities.

Unit II: Theory of Production and Cost :(Lectures: 10)

Total, Average and Marginal Product of a Single Variable Factor; Production Function with Two Variable Factors, Isoquant, Marginal Rate of Technical Substitution, Elasticity of Substitution; Returns to a factor and returns to scale, The Least Cost Combination of Inputs, Expansion Path, Concept of Cost and Cost

Curves- Short and Long Run, Production Function- Cobb-Douglas, Multi Product Firm- Production Possibility Frontier.

Unit III: **Market Equilibrium :(Lectures: 10)**

Perfect Competition: Characteristics, firms and industry's equilibrium.

Monopoly: Pure and Simple Monopoly, Price-Output Determination, Degree of Monopoly Power, Price Discrimination: Degree of price discrimination, equilibrium in price discrimination.

Monopolistic Competition: Its different Characteristics, Perceived and Proportionate Demand Curve, Price-Output Determination. Concept of Excess Capacity.

Oligopoly: Kinked Demand Curve.

Unit IV: **Input Markets: (Lectures: 08)**

Input Markets: Theory of Distribution, personal and functional distribution, Labour and land markets, Ricardian theory of rent, Basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; labour markets and public policy, income-leisure trade off, collective bargaining, risk and uncertainty bearing theory of profit.

Unit V: **General Equilibrium Analysis: (Lectures: 07)**

Equilibrium and efficiency in exchange and production; overall efficiency (input and output Markets); concepts of equity; Existence, uniqueness and stability of equilibrium; Walras's law; Welfare economics: Pigou's concept of double criteria, Pareto Optimality, Criteria of Social Welfare (concepts only), social welfare function and the theory of second best.

RECOMMENDED BOOKS:

1. Henderson and Quandt, Microeconomic Theory: A Mathematical Approach,McGrawHill Inc.

2. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, 8 th edition, W.W. Norton and Company/Affiliated East-West Press (India), 2010.The workbook by Varian and Bergstrom could be used for problems.

3. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.

4. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
5. Rubinfeld and Pindyck, Microeconomics, Pearson
6. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
7. Dominick Salvatore, Microeconomic Theory, Schaum's Outline Series, McGraw Hill
8. N C Ray, Microeconomic Theory, MacMillan
9. G.S. Maddala and Ellen Miller, Micro Economic Theory and Application, Tata McGraw-Hill.
10. H.L. Ahuja, Modern Microeconomics, S. Chanda and Sons
11. A. Koutsoyanis, Modern Microeconomics, McMillan

COURSE NAME: Advanced Macroeconomics-I

COURSE CODE: EC- CE - 3224

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

This course is designed to provide a comprehensive knowledge in macroeconomics. It provides basic ideas on macroeconomic variables like income, employment, consumption, investment and so on. It discusses various alternative theories of output and employment determination in a closed economy in short-run. In addition, it covers long run dynamic issues like growth and technical progress. It also provides different theoretical understanding of issues related to an open economy.

COURSE LEARNING OUTCOME:

CLO1: Attain knowledge of macroeconomic equilibrium and income determination.

CLO2: Understand important growth models in economics

CLO3: Comprehend the factors determining investment and consumption in an economy.

CLO4: Understand the relationship between inflation and unemployment, and the role of expectations

COURSE OUTLINE:

Unit I: Macroeconomic Equilibrium and Income Determination: (Lectures: 10)

Idea of Equilibrium as Applied to a Basic Macroeconomy, Ex Post and Ex Ante Savings and Investment, Keynes' Approach of Aggregate Effective Demand and Determination of Income, Multiplier Analysis

Unit II: Consumption Function: (Lectures: 10)

Average and Marginal Propensity to Consume; Factors influencing Consumption spending; Keynesian consumption function; An Overview of Post Keynesian theories of consumption: absolute income, relative income, permanent income & life cycle hypothesis.

Unit III: Investment Function: (Lectures: 10)

Types of investment- Autonomous and Induced, residential investment and inventory investment; determinants of business fixed investment; marginal efficiency of capital, marginal efficiency of investment; Accelerator theory of Investment; Multiplier-Accelerator interaction.

Unit IV: Macro Economic modeling: (Lectures: 08)

IS-LM model and policy analysis, Income determination in an open economy; Mundell Fleming model; Exchange rate and its determination; Purchasing power parity; Demand Supply and Balance of Payments theory.

Unit V: Inflation, Unemployment and Expectations: (Lectures: 07)

Inflation-unemployment trade off and Phillips curve; Adaptive and Rational expectations; policy ineffectiveness debate. Automatic stabilizer (concept only)

RECOMMENDED BOOKS

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010
2. Dominick Salvatore, International Economics: Trade and Finance, John Wiley, 10th Edition 2011
3. N. Gregory Mankiw, Macroeconomics, Worth Publishers, 7th edition, 2010
4. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005
5. R. D. Gupta, Keynes and Post Keynesian Economics, S. Chand and Sons.
6. Rana and Verma, Macroeconomic Analysis, Vishal Publishing Company, Jalandhar.

COURSE NAME: Mathematical Methods for Economics I

COURSE CODE: EC- CE - 4214

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The main objective of the course is to enable students to understand basic mathematical tools which are used in Economics for better understanding and application of Economic Theories. The course will improve the mathematical skills necessary to study economics. It will help students to identify, solve and interpret the characteristics of linear, polynomial, exponential, logarithmic and quadratic functions. The students shall be able to analyze nonlinear functions using differential calculus. In this course students will learn about homogenous functions, Euler's Theorem as well as matrices and determinants.

COURSE LEARNING OUTCOME:

CLO1: Identify various mathematical functions and their applications.

CLO2: Interpret Mathematical outcomes in terms of economics.

CLO3: Understand the applications of mathematical tools in economics

CLO4: Acquire skills to interpret Economic theories in mathematical terms

COURSE OUTLINE:

Unit I. Theory of sets: (Lectures: 08)

Meaning, types, operations of sets, representation of sets in Venn diagrams. Functions - meaning and types of functions, Limit and Continuity of Functions.

Unit II. Differential Calculus: (Lectures: 12)

Differentiation of a function, Basic rules of differentiation, partial and total differentiation, second and higher order derivatives for single variable, Local and global optima: geometric characterization, characterization using calculus: tests for maximization and minimization,

Unit III. Matrices and Determinants: (Lectures: 11)

Matrix: various types of matrices, norms of a matrix, matrix operations: addition, subtraction and multiplication; rank, and trace of a matrix, introduction to the concept of determinants and their properties, non-singularity of matrix, matrix inversion, solutions of simultaneous equations by using matrix inversion and Cramer's rule.

Unit IV. Integral calculus:(Lectures: 07)

Meaning and significance of integration, basic rules of integration, significance of a constant after integration, derivations of total functions, indefinite and definite integrals.

Unit V: Game Theory: (Lectures: 07)

Payoff matrix, strategies, two person zero-sum game, Prisoner's dilemma, pure, mixed and dominance rule, Nash equilibrium

RECOMMENDED BOOKS:

1. Mehta and Madnani, Mathematics for Economics, S. Chand and Sons, New Delhi, 2013
2. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill International Edition
3. Srinath Baruah, Basic Mathematics and its Application in Economics, Trinity, New Delhi, 2017

COURSE NAME: Statistical Methods for Economics 1

COURSE CODE: EC- CE - 4224

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

To provide the basics of statistics and its applications in economics. To familiarize the learners with the knowledge of statistical tools of probability, theoretical distribution and time series to help them build up strong quantitative skill. To acquaint the students with some basic ideas of statistical measures for solving economic problems.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic statistical tools and skills essential for economic decision making.

CLO2: Develop a strong foundation on Probability Theory

CLO3: Understand the most common discrete and continuous probability distributions and their real life applications.

CLO4: Analyze variable relationship and prediction using time series analysis

COURSE OUTLINE

Unit I: Elementary Probability Theory: (Lectures: 15)

Sample spaces and events, probability axioms and properties, different approaches to probability: classical approach, statistical approach and axiomatic approach; addition and multiplication theorem of probability, counting techniques, conditional probability and Bayes' rule, independence of events

Unit II: Theoretical distributions: (Lectures: 15)

Random variables, probability distributions, expected value of random variables and functions of random variables: probability mass function and probability density function, commonly used discrete and continuous distributions: Uniform, Binomial, Poisson and Normal

Unit III: Random Sampling and jointly distributed random variables: (Lectures:08)

Density and distribution functions for jointly distributed random variables, covariance and correlation

Unit IV: Introduction to Time Series: (Lectures: 07)

Time series analysis- concept and components, measurement of trend: moving average and least square method, fitting of linear trend curves.

RECOMMENDED BOOKS:

1. Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning,2010
2. John E. Freund, Mathematical Statistics, Prentice Hall, 1992
3. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011
4. D. Salvatore: Mathematics and Statistics, Schaum's Series Tata McGraw Hill.
5. S.P. Gupta Statistical Methods, Sultan Chand and Sons, 2021, 46th Edition
6. S.C. Gupta and V.K. Kapoor, Fundamentals of Applied Statistics Sultan Chand and Sons, 2020, 12th Edition

COURSE NAME: Development Economics-I

COURSE CODE: EC- CE - 4234

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to provide the students with understanding of the concepts, tools and the recent developments in the field of Development Economics; the challenges causing underdevelopment and the strategies underpinning the development process.

COURSE LEARNING OUTCOME:

CLO 1: Understand the concept of economic development and underdevelopment and the factors responsible for the process.

CLO2: Understand and analyze the theoretical foundations and strategic concerns of Development Economics and their relevance in the present

CLO 3: Analyze the challenges-inequality and poverty in the development process and their implications.

CLO 4: Assess the evolution of mainstreaming Environment into Development-Planning through Sustainable Development Goals (SDGs).

COURSE OUTLINE:

Unit I: Development-concept and measurement: (Lectures: 08)

Economic Development: Concept and Definition; Alternative measures of development: HDI, HPI, MPI, Gender Index; Factors Responsible for Development; Underdevelopment: Meaning and Causes; Underdevelopment and its relationship with creation and distribution of wealth; Structural Changes and Economic Development

Unit II: Theories of Economic Development:(Lectures: 10)

Classical Theories of Development: Harrod-Domar, Solow, Kaldor, The Lewis' theory of Unlimited Supply of Labour; Dependency Theory of Development; Haris-Todaro Model of Rural-Urban Migration; Vicious circle of Poverty, Cumulative Causation Theory.

Unit III: **Strategies of Development :(Lectures: 10)**

Rostow's Stages of Growth, Big Push Theory, Balanced and unbalanced Growth Theory Leibenstein Critical Minimum Effort Theory.

Unit IV. **Inequality and Poverty** :(**Lectures: 08)**

Economic inequality: Introduction; Measuring economic inequality: Lorenz Curve and Ginni Coefficient, Inequality and Development: Implications, Inequality in informal sector

Poverty –Absolute and Relative, Its Measurement, Poverty Trap - Causes and Implications for development.

Unit V. **Environment-Development Debate and Sustainable Development Goals** :(**Lectures: 09)**

Poverty-Environment Nexus; Environment-Development Debate: Environmental Kuznets Curve Hypothesis; Global Causes of Environmental Degradation; Sustainable Development: Conceptual Framework; Evolution of SDGs: Rio Summit, Millennium Development Goals, Sustainable Development Goals, Climate Change: global challenges and global partnerships

RECOMMENDED BOOKS:

1. Debraj Ray, Development Economics, Oxford University Press, 1999, 1st Edition.
2. Partha Dasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007, Illustrated Edition.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press, 2006, 1st Edition.
4. A.P. Thirwall, Growth and Development: With Special Reference to Developing Economies, Palgrave, 2006, 8th Edition.
5. Kaushik Basu, The New Oxford Companion to Economics in India, OUP, 2012, 3rd Edition.
6. M. Todaro and S. Smith, Economic Development, Pearson, 2015, 12th Edition.

COURSE NAME: Mathematical Methods for Economics II

COURSE CODE: EC- CE - 5314

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to help students learn to demonstrate their understanding of the rules of differentiation as they apply them to single and multivariable functions. They shall also learn to find solutions to unconstrained optimization problems by identifying relative and global maximum and minimum of single and multivariable functions. Further the learners shall be able to find the solution for constrained optimization problems using methods of substitution and Lagrange multiplier for both equality and inequality constraints. This course shall also enable students to apply matrices and determinants to solve economic problems, use integration and matrix algebra techniques in economic analysis and analyze difference and differential equations of first and second order.

COURSE LEARNING OUTCOME:

CLO1: Able to find solutions to unconstrained optimization problems by identifying relative and global maximum and minimum of single and multivariable functions.

CLO2: Able to find solutions to constrained optimization problems using methods of substitution and Lagrange multiplier for both equality and inequality constraints.

CLO3: Use integration and matrix algebra techniques in economic analysis.

CLO4: Analyze difference and differential equations of first and second order.

CLO5: Understand economic model building by using mathematics

CLO6: Solve economic problems using mathematical tools and interpret the results thus obtained and use in current and future policy making processes.

COURSE OUTLINE:

Unit I: Applications of differential calculus in economics: (Lectures: 13)

Single variable applications: profit maximization, revenue maximization - Multivariable optimization Unconstrained optimization: and applications: price discrimination and multi-plant firm; constrained optimization with equality constraints, Lagrange multiplier, applications: consumer’s equilibrium.

Unit II: **Producer's equilibrium: (Lectures: 10)**

Homogeneity of a production function, Cobb-Douglas production function – properties, Euler's theorem, derivation of short run and long run cost functions, cost minimization and least cost combination of factors, constant elasticity of substitution production function

Unit III: **Applications of linear algebra in economics: (Lectures: 12)**

Solution of simple market model, national income model, solution of input-output model in a closed economy derivation of total cost, total revenue, total consumption derivation of consumer's and producer's surplus, rate of growth.

Unit IV: **Differential equation: (Lectures: 05)**

Meaning, first order differential equation, application to market model

Unit V: **Difference equation: (Lectures: 05)**

First order difference equation, Cob-Web market model.

RECOMMENDED BOOKS

1. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002
2. 2. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill International Edition
3. 3. Baruah S.N., Basic Mathematics and its Economic Applications, MacMillan.
4. James M. Handerson, Microeconomic Theory – A mathematical approach, VISIONIAS, 2020.

COURSE NAME: Statistical Methods for Economics II

COURSE CODE: EC- CE - 5324

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

To provide basic ideas on elementary statistics. To acquaint the students with the basic quantitative techniques like correlation, regression, vital statistics and sampling methods which are very helpful for studying economic theories and analyzing economic phenomena. To enable the students to have some basic ideas of statistical measures to be applied for solving economic problems.

COURSE LEARNING OUTCOME:

CLO1: Analyze variable relationship and prediction using correlation and regression

CLO2: Understand the basic quantitative skills essential for economic analysis.

CLO3: Comprehend the vital events based on the population studies, understanding birth, death process and life table combing demography data.

CLO4: Acquire the basic knowledge of complete enumeration and sample.

CLO5: Understand the basics of Sampling Methods and the different statistical sampling techniques.

COURSE OUTLINE:

Unit I: Correlation Analysis: (Lectures: 11)

Correlation, coefficient of linear correlation, properties of correlation coefficient, Rank correlation, partial correlation, multiple correlation

Unit II: Regression Analysis: (Lectures: 11)

Regression: Concept, difference with correlation analysis, properties, estimation of regression line in a bivariate distribution: least square method, properties of regression coefficients

Unit III: **Vital Statistics: (Lectures: 11)**

Introduction and sources of collecting data on vital statistics, measurement of population, rate and ratio of vital events; measurement of mortality: Crude Death Rate (CDR), Specific Death Rate (SDR), Infant Mortality Rate (IMR) and Standardized Death Rates; construction and use of life table

Unit IV: **Sampling: (Lectures: 12)**

Principle steps in a Sample Survey; methods of sampling; sampling techniques: random, stratified random, multistage random and systematic random sampling, the role of sampling theory, properties of random sampling

RECOMMENDED BOOKS:

1. William G. Cochran, Sampling Techniques, John Wiley, 2007
2. John E. Freund, Mathematical Statistics, Prentice Hall, 1992
3. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011
4. S.P. Gupta Statistical Methods, Sultan Chand and Sons, 2021, 46th Edition
5. S.C. Gupta and V.K. Kapoor, Fundamentals of Applied Statistics Sultan Chand and Sons, 2020, 12th Edition
6. Goon, Gupta, Das Gupta, Fundamentals of Statistics Vol 1, World Press Private, 2008
7. Goon, Gupta, Das Gupta, Fundamentals of Statistics Vol 1I, World Press Private, 2008

COURSE NAME: Indian Economy with special reference to the North-East Economy

COURSE CODE: EC- CE - 5334

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of this core course is to make the learners aware about the evolution of Indian economy, planning strategies and their appraisal, developments in key sectors of the economy with special emphasis on North-East Economy and the recent policy initiatives for self-reliant India

COURSE LEARNING OUTCOME:

CLO 1: Understand the evolution of India economy and analyze the performance of the strategies in the pre-reform and the post-reform period

CLO 2: Evaluate the growth patterns in the key sectors of Indian economy

CLO 3: Understand and comprehend the recent policy initiatives by GOI for making India self-reliant

CLO 4: Analyze the indicators of development and the policies for developing North-East India.

COURSE OUTLINE:

Unit I: Evolution of Indian Economy since independence: (Lectures: 10)

State of Indian economy at independence: causes of backwardness and implications; Economic Planning in pre- reforms era-an overview, strategies and performance; Economic Reforms in the Indian Economy since 1991- features, strategies-appraisal; Regional imbalance; Structural changes in National Income

Unit II: Sectoral development in India: Agriculture :(Lectures: 10)

Land reforms – Green Revolution , Need for Organic Farming: Climate smart agriculture and Reforms in agriculture since 1991; Agricultural Price Policy: food procurement, pricing and distribution, Minimum Support Price, Public Distribution System (PDS), Food Subsidy, Food Security.

Unit III: Sectoral development in India: Industry and Services :(Lectures: 08)

Industries: Production Trends; Causes and implications for income-employment generation, MSMEs: Definition, Growing importance of MSMEs in Indian Economy, Challenges; Growth of Service Sector: Share in Employment and Current Challenges.

Unit IV: Key initiatives for SMART India :(Lectures: 07)

GST – Direct Benefit Transfer; Jan Dhan Yojana and financial inclusion – banking sector reforms; Labour Reforms; Ditigation Move; Atmanirbhar Bharat, Make in India and Start-ups; Skill India, Viksit Bharat @2047

Unit V: North-East Economy: Evolution, Growth and Composition :(Lectures: 10)

State of North-East Economy under Colonial Rule: Inflow of Colonial Investment in Plantation, Mining and Other Industries. Development of Water Transport and Railways; Trends in Demographic Parameters: Population Density, Sex Ratio, Life Expectancy, Fertility Rate and Infant Mortality Rate; Trends and Sector-wise Composition of GSDP, Trend in Per Capita NSDP in comparison with trends in all-India Per Capita Income; Achievement in HDI and SDGs as compared to All-India level, Act East Policy, Agencies for developing N-E Region: DONER, NEC and NEDFi

RECOMMENDED BOOKS:

1. Arvind Panagariya, 2010, India the Emerging Giant, OUP, 1st Edition.
2. Jagdish Bhagyawati and Arvind Panagariya, 2013, Why Growth Matters, Public Affairs, 1st Edition.
3. Uma Kapila, 2017-18. Indian Economy: Performance and Policies, Academic Foundation, 24th Edition.
4. S.K. Misra and V.K. Puri, Indian Economy, Himalaya Publishing House, Latest Edition.
5. G. Datt and A. Mahajan, Indian Economy, S. Chand, Latest Edition.
6. Jean Dreze and Amartya Sen, 2013. An Uncertain Glory: India and its Contradictions, Princeton University Press. Illustrated Edition.
7. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, Economic and Political Weekly, Vol. 42, Issue No. 45-46.
8. Rakesh Mohan, 2008. ―Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, Economic and Political Weekly, Vol. 43, Issue No. 19.

9. Reetika Khera, 2011, —India‘s Public Distribution System: Utilization and Impact Journal of Development Studies.

10. B.A. Prakash, (ed), The Indian Economy Since 1991, 2012, PEARSON, 2nd Edition.

11. Barua, A., France (Eds.). (2005). India’s North-East: developmental issues in a historical perspective. New Delhi: Manohar Publishers & Distributors.

12. Debnath, A. (2012). Structural Change and Inter-sectoral Linkages. Economic and Political Weekly, Vol. 47, Issue No. 06.

13. Dhar, P. K. (2016). Economy of Assam, New Delhi: Kalyani Publishers, 9th Edition.

14. Ganguly, J. B. (2006). An economic history of North East India, 1826-1947. New Delhi: Akansha Pub. House, Illustrated Edition.

15. Goswami, P. C. (1963). Economic Development of Assam. London: Asia Publishing House, 1st Edition.

16. Directorate of Economics and Statistics, Government of Assam, Statistical Handbook of Assam-latest Edition

17. Planning and Development Department, Government of Assam, Assam Human Development Report, 2014.

COURSE NAME: International Economics
COURSE CODE: EC- CE - 5344
Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

This course covers the theory and practice of international trade and trade-related policies. It focuses on analyzing the terms of trade, gains from trade, changing patterns of trade, income distribution, consequences of foreign trade liberalization and causes and consequences of trade policy. This course also covers advances in trade theory over the years as well as a comprehensive discussion of the international monetary system.

COURSE LEARNING OUTCOME:

CLO1: Understand the analytical methods needed and comprehend how and when to apply different models and approaches to events in the world economy

CLO2: Understand the intellectual and practical problems which arise from the economic interaction between countries.

CLO3: Understand the international pattern of trade and specialization and the reasons why similar economies often trade more with each other than with dissimilar ones.

CLO4: Acquire knowledge on terms of trade and gains from trade.

CLO5: Comprehend the monetary sphere, the determinants of exchange rates; the analysis of the channels of international economic interdependence.

COURSE OUTLINE:

Unit I: Modern Theories of International Trade: (Lectures: 12)

Heckscher-Ohlin model, specific factors model, new trade theories- Leontief Paradox, factor intensity reversal, international trade in the context of economies of scale and imperfect competition, technological gap and product cycle theory of Vernon, Locational theory of international trade; multinational enterprises and international trade.

Unit II: Terms of Trade and Gains from Trade :(Lectures: 8)

Concepts of Terms of Trade; Factors affecting Terms of Trade; Gains from Trade; Offer Curve and Gains from Trade, Trade as an Engine of Growth.

Unit III: Trade Policy :(Lectures: 10)

Instruments of trade policy-tariff and quota-partial equilibrium analysis; political economy of trade policy-free trade versus protection; controversies in trade policy, fixed versus flexible exchange rates; managed floating exchange rate.

Unit IV: International Economic Integration :(Lectures: 09)

Forms of Economic Integration, theories of Custom Union- partial equilibrium analysis, European Economic Union.

Unit V: International Monetary System :(Lectures: 06)

International monetary systems- Bretton-Woods system, SAARC, G-20 Counties

RECOMMENDED BOOKS:

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 10th edition, 2019.
2. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
3. Bo Soderstein and Geoffrey Read: International Economics, Macmillan, 3rd edition, 1994
4. H G Mannur, International Economics: Theory and Practice, Vikash Publishing House.

COURSE NAME: Banking and Financial System

COURSE CODE: EC- CE - 6314

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to provide a brief comprehensive understanding of the structure and the working of banking system and fundamentals of financial system.

COURSE LEARNING OUTCOME:

CLO 1: Understand the structure and the working of the banking system

CLO 2: Analyze the monetary policy of central bank.

CLO 3: Able to assess the functioning of financial system and the reforms in the financial sector.

COURSE OUTLINE:

Unit I: Banking System: (Lectures: 08)

Meaning and types; Commercial banks: functions and process of credit creation limitations, Balance sheet of Commercial banks, portfolio management; banking sector reforms in India

Unit II: Central Banking and Monetary Policy :(Lectures: 08)

Functions of Central Bank; Balance sheet of RBI; Goals, Indicators and Instruments of monetary control; Monetary Management in an Open Economy; Current Monetary Policy of India

Unit III: Introduction to Financial System :(Lectures: 10)

Financial System: Meaning, Formal and Informal Financial System, Components, Functions, Interdependence; Types, Nature and Role of Financial Institutions.

Unit IV: Financial Markets :(Lectures: 12)

Money Market: Structure and functions, Money Market Instruments, Liquidity Management Instruments in the Money Market

The Capital Market: Nature and functions, Primary Capital Market: Instruments of resource mobilization- Public Issues: IPO & FPO, Right Issues, and Private Placement. Pricing of new issues.

Secondary Capital Market: Trading & Settlement. Stock Market Index. Mutual Fund (Concept Only); Financial Sector Reforms in India

Unit V: Interest Rates :(Lectures: 07)

Determinants; Sources of Interest Rate Differentials; The Yield Curve; Interest Rates in India.

RECOMMENDED BOOKS:

1. F. S. Mishkin and S. G. Eakins, Financial Markets and Institutions, Pearson Education, 6th edition, 2009.
2. F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, Foundations of Financial Markets and Institutions, Pearson Education, 3rd edition, 2009.
3. M. R. Baye and D. W. Jansen, Money, Banking and Financial Markets, AITBS, 1996.
4. Rakesh Mohan, Growth with Financial Stability- Central Banking in an Emerging Market, Oxford University Press, 2011,
5. L. M. Bhole and J. Mahukud, Financial Institutions and Markets, Tata McGraw Hill, 5 th edition, 2011
6. M. Y. Khan, Indian Financial System, Tata McGraw Hill, 7th edition, 2011
7. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest)
8. B. V. Pathak Indian Financial System, Pearson Education, Singapore, 2014, 4th Edition.
9. Prasanna Chandra. Fundamentals of Financial Management. McGraw Hill Education, 7th Edition.

COURSE NAME: BASIC ECONOMETRICS

COURSE CODE: EC-CE-6324

Total Credits: 4 (Theory: 3+Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

This course shall introduce students to the econometric methods used to conduct empirical analysis in Economics. The course is designed to provide the students with the basic quantitative techniques needed to undertake applied research projects. It also provides the base for more advanced optional courses in econometrics.

COURSE LEARNING OUTCOME:

CLO1: Able to estimate linear models using ordinary least squares and makes inferences about population parameters.

CLO2: Able to estimate parameters with simple OLSE and multivariable linear regression.

CLO3: Identify the problems that arise due to violation of OLSE assumptions and find their remedies.

CLO4: Understand the biases created through mis-specified models, such as those that occur when variables are omitted.

COURSE OUTLINE:

Unit I: Statistical Background: (Lectures: 15)

Normal distribution; chi-sq, t- and F-distributions; estimation of parameters; properties of estimators; Statistical hypotheses, null and alternative hypotheses; testing of hypotheses: defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples

Unit II: Two variable linear Regression analysis: (Lectures: 12)

Regression lines, derivation of regression coefficients; Simple Linear Regression Model: Two Variable Case with random disturbance term; Estimation of model by method of ordinary least squares; properties of estimators; Gauss Markov theorem; goodness of fit; tests of hypotheses; scaling and units of measurement; confidence intervals; forecasting.

Unit III: Multiple Linear Regression Model: (Lectures: 08)

Multiple Linear Regression Model Estimation of parameters; properties of OLS estimators; goodness of fit – R^2 and adjusted R^2; partial regression coefficients; testing hypotheses – individual and joint; functional forms of regression models; qualitative (dummy) independent variables.

Unit IV: Violations of Classical Assumptions: (Lectures: 06)

Consequences, Detection and Remedies Multi-collinearity; heteroscedasticity; serial correlation.

Unit V: Specification Analysis: (Lectures: 04)

Omission of a relevant variable; inclusion of irrelevant variable; tests of specification errors.

RECOMMENDED BOOKS:

1. D.N. Gujarati and D.C. Porter, Essentials of Econometrics, McGraw-Hill, 4th edition, **International** Edition, 2009.

2. Christopher Dougherty, Introduction to Econometrics, Oxford University Press, 3rdedition, Indian edition, 2007

3. B. C. Mehta and Kranti Kapoor, Econometrics, Himalaya Publishing House. 2008

4. J. Johnston, Econometric Methods, McGraw Hill.

COURSE NAME: Environmental Economics

COURSE CODE: EC-CE-6334

Total Credits: 4 (Theory: 3+Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The course concentrates on economic causes of environmental issues and problems. Particularly, economic principles are used to answer environmental questions and their management through various economic institutions, economic incentives and other instruments and policies for ushering the path of sustainable development. Economic implications of environmental policies are also applied to address international environmental problems like climate change, Transboundary pollutions. Environmental economics increases the scope of mitigation among developed and developing nations regarding the above mentioned problems. In this way, students will be actively engaged in the present world scenario in the context of environment and development.

COURSE LEARNING OUTCOME:

CLO1: Develop a comprehensive knowledge and understanding of the issues related to economy and environment.

CLO2: Acquaint students with the issues related to market failure of environmental goods and the instruments which can prevent the damages of market failure of environmental goods.

CLO3: Develop theoretical knowledge of resource economics so as to enable learners to understand as how an economy should use the natural resources in an optimum way, such that an economy can take up the path of sustainable development.

CLO4: It will help in understanding the current dynamics of global environmental issues and concerns.

COURSE OUTLINE:

Unit I: Introduction: (Lectures:05)

Basic concept of Environment, Ecology and the Economy; Definition and scope of environmental economics; economy environment interaction, material balance theory; population and environment; environmental economics and ecological economics, Environmental economics and resource economics (idea only)

Unit II: **Market Failure in allocation of Environmental resources: (Lectures: 08)**

Market Failure- Meaning, Causes of market failure; Externality and its various types, Coase theorem; Environment as a public good; Solutions to market failure- Government Intervention through taxes and subsidies; Common Property Resources and its management

Unit III: **The Design and Implementation of Environmental Policy: (Lectures: 12)**

Economics of Environmental Policies- Overview; Conventional Instruments- Command and Control (CAC) approach; Economic Instruments of Environmental Policies-Pigovian taxes, tradable pollution permits and Liability rules; Monitoring and Enforcement: Meaning, Penalties, Cost of abatement

Unit IV: **Sustainable Development: (Lectures: 10)**

Approaches to Sustainable Development: weak sustainability and strong sustainability; Safe minimum standard approach, ecological perspective and social perspective; Rules and indicators of Sustainable Development; Green Accounting (concept only)

Unit V: **International Environmental Problems and Initiatives: (Lectures: 10)**

Transboundary pollution (Problems of International Externalities); Economics of Climate change and Variability: Causes and Consequence; Inter linkages and trade off between Environment and Development- The Environmental Kuznet Curve; Trade and environment: pollution haven hypothesis; Global Intervention for Sustainable Development

RECOMMENDED BOOKS:

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2011
2. Bhattacharyya R, Environmental Economics, Oxford University Press, 2005
3. Nick Hanley, Jason F. Shogren and Ben White, Introduction to Environmental Economics, Oxford University Press, 2005
4. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings, W.W. Norton, 5th edition, 2005.
5. Roger Perman, Yue Ma, James Mc Gilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd edition, 2003.
6. Maureen L. Cropper and Wallace E. Oates, 1992, ―Environmental Economics: A Survey, ‖ Journal of Economic Literature, Volume 30:675-740.
7. Subhashini Muthukrishnan, Economics of Environment, PHI Learning Private Limited, 2nd edition, 2015.

COURSE NAME: Public Economics I

COURSE CODE: EC-CE-6344

Total Credits: 4 (Theory: 3+Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

To provide a comprehensive understanding of the public economics along with the basics of India's fiscal system. To look into the efficiency and equity aspects of taxation and expenditure. To examine the objective of fiscal policy and explore fiscal federalism in India. The course shall also explain Kautilya's ideas on the principles of administration and highlight its relevance in the present day study of public administration.

COURSE LEARNING OUTCOME:

CLO1:	Understand the basic fiscal functions of the economy
CLO2:	Understand and analyze the different theories of efficient public goods provision
CLO3:	Comprehend the efficiency and equity aspects of taxation and public expenditure
CLO4:	Evaluate the different aspects and the implications of public debt
CLO5:	Examine the objectives of Fiscal Policy
CLO6:	Evaluate the basics of Indian public finances, including recent tax structures
CLO7:	Examine the structure and pattern of government machinery in Kautilya's time
CLO8:	Understand the views of Kautilya on the aspects of financial and personal administration

COURSE OUTLINE:

Unit I: Nature and Scope: (Lectures: 05)

Public Finance and its nature, Fiscal Functions: Allocation, Distribution and Stabilization, Coordinating the functions; Parameters for policy evaluation: Equity, Efficiency, Paternalism

Unit II: Economics of Public Goods: (Lectures: 6)

Pure Public Good: meaning and characteristics; Distinction between Pure and impure Public Good; public goods and free rider problem; Externalities: inefficiencies and corrections; property rights and the Coase theorem

Unit III: Taxation: (Lectures: 10)

Classification of Taxes; Canons of Taxation; Principles of Taxation - Benefit Principle, Equal Sacrifice Principle, Ability to Pay Principle, Shifting and Incidence of tax. Economic effects, dead weight loss and distortion; Efficiency and equity considerations

Unit IV: Public Expenditure: (Lectures: 07)

Meaning and Classification of Public Expenditure, Principles of Public Expenditure Analysis, Public Expenditure as an instrument of growth and stabilization, Lindhal's model of Voluntary Exchange, Samuelson's benefit theory of public expenditure

Unit V: Public Debt: (Lectures: 04)

Meaning of Public Debt; Sources of Public Debt and its redemption; Burden of Public Debt; Strategies of Debt Management.

Unit-VI: Fiscal Policy and Federal Finance (Lectures: 08)

Objectives and Strategies, Compensatory fiscal policy, pump priming, functional finance. Balanced Budget Multiplier; Fiscal Federalism: Vertical and Horizontal Equity, Inter-governmental Transfers.; Finance Commission of India: objectives, functions and overview of the latest report

Unit VII: Kautilya: (Lectures: 05)

Kautilya and Arthashastra; Principles of Public administration, organization and

structure of administrative machinery, personal administration and financial administration

RECOMMENDED BOOKS:

1. Browning E K & Browning J M, Public Finance and the Price System, Pearson
2. Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, Mc-GrawHill, 1989
3. Mahesh Purohit, "Value Added Tax: Experience of India and Other Countries", Gayatri Publications, 2007.
4. KaushikBasu, and A. Maertens (ed.), The Oxford Companion to Economics in India, Oxford University Press, 2007.
5. Economic Survey, Government of India (latest)
6. J. Hindriks, G. Myles: Intermediate Public Economics, MIT Press, 2006.
7. Report of the latest Finance commission of India
8. The Arthashastra (Penguin classics), Kautilya, India Penguin Classics, 2000

COURSE NAME: Research Methodology for Economic Analysis

COURSE CODE: EC-CE-7414

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

The objective of the course is to enable the learners to develop a skill set that helps them to plan, design and prepare a research project. The course, comprising of theory and techniques required in research, aims to enhance the research acumen of learners. Students shall learn to formulate research questions, design studies, manage and analyse data and communicate the findings ethically.

COURSE LEARNING OUTCOME:

CLO 1: Develop a conceptual understanding and foundation related to Research Methodology and its various approaches.

CLO 2: Understand fundamental ethical principles guiding all research steps and apply honesty and integrity while doing research

CLO 3: Identify and provide a logical reasoning in the formulation of research problem, and the problems involved in systematic explanation of phenomenon

CLO 4: Develop Research Design based on multifarious approaches with quantitative and qualitative techniques for economic data analysis.

Unit 1: Foundations of Economic Research: (Lectures: 07)

Research- Meaning & Significance; Types of research- Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical; Research Methods versus Research Methodology; Criteria of good research; Problems encountered by researchers

Unit II: Research Ethics: (Lecture: 07)

Meaning and relevance of research ethics; Scope of ethics in theoretical and empirical research; Fundamental ethical principles: Integrity, honesty, objectivity, transparency, accountability; Ethics in data collection, analysis and interpretation; Research misconduct: Plagiarism, fabrication and falsification, selective reporting; Ethics in the use of secondary data; Emerging Ethical challenges in Economic Research: artificial intelligence, and data privacy concerns

Unit III: Research Problem and Research Design: (Lectures: 07)

Research problem: Formulation of a research problem; Writing a research proposal, formulation of hypothesis; Review of literature and Citation

Research Design: Meaning and Features of research design, Concepts relating to research design, Qualitative, Quantitative and Mixed Research Design; errors and types of errors in research design.

Unit IV: Data Collection and sampling: (Lectures:09)

Sources of secondary data- Published sources, Unpublished sources; Primary Data -Methods of collecting primary data; Questionnaire and Schedule: Meaning of questionnaire and schedule, Drafting of questionnaire, Size of questions, Clarity of questions, Logical sequence of questions, Requirements of a good questionnaire; Difference between Questionnaires and Schedules; Types of sampling, Determination of the size of sample, Sampling procedure, Choice of Sampling technique

Unit V: Data Analysis: (Lectures:10)

Use of statistical tools: Univariate, Bivariate and Multivariate statistical techniques; Graphs and Charts; Measures of Central Tendency; Dispersion; Parametric test- ‘t’ test, F-test, Analysis of Variance (ANOVA); Non-parametric tests- Chi-square test; Simple Correlation; Multiple correlation; Partial correlation; Simple linear and Multiple linear regression model; Limitations of the use of statistical tools

Unit 6: Report Writing:(Lectures:05)

Report writing: Characteristics of a good report; Framework of a Report -Parts of a Research Report; Format and Presentation of a Report; Importance of Presentation of a Report

PRACTICAL: 1 credit (30 hours)

Application of MS-Excel and SPSS for DataAnalysis:

Editing of Data, Coding of Data, Classification of Data , Qualitative vs Quantitative data analyses: Univariate, Bivariate and Multivariate statistical techniques; Graphical representation of data: creating graphs and charts : Measures of Central Tendency, Dispersion; Parametric test: ‘t’ test-one sample ‘t’ test, independent ‘t’ test, paired sample ‘t’ test, F-test, Analysis of Variance (ANOVA); Non-parametric tests: Chi-square test; correlation: Simple Correlation; Multiple correlation; Partial correlation; Regression: Simple linear and Multiple linear regression model

Recommended Books:

1. Bhandarkar, P.L. and T.S. Wilkinson, Methodology And Techniques of Social Research. Himalaya Publishing

2. Ethridge, Don, Research Methodology in Applied Economics, Blackwell Publishing

3. Druckman, Daniel, Doing Research: Methods of Inquiry for Conflict Analysis, Sage Publications, New Delhi

4. Kothari, C.R., Research Methodology: Methods and Techniques, New Age International Publishers

5. Krishnaswamy, O.R., Ranganathan, M., Harikumar, P.N., Research Methodology, Himalaya publishing House, 2016.

6. Cooper D. and Schindler P. Business Research Methods, Tata McGraw Hill, Sultan Chand & Sons.

7. Oliver,P., Writing your thesis, Sage Publications India Pvt. Ltd.

Course Name: Advanced Microeconomics – II

Course Code: EC-CE-7424
Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)
Total Lectures: 45

Course Objective:

This course is designed to provide students with an advanced understanding of microeconomic theory to analyze the behaviour of individual agents, firms, and markets. Emphasis is placed on modern theories of the firm, strategic interaction, intertemporal choice, uncertainty, general equilibrium, welfare economics, and factor pricing. The course equips students with analytical tools to apply microeconomic concepts to real-world and policy-oriented problems.

COURSE LEARNING OUTCOME:

CLO1: Understand modern theories of the firm and managerial behaviour.

CLO2: Analyzeintertemporal decision-making under uncertainty.

CLO 3: Apply general equilibrium and welfare economics to policy and real-world markets.

CLO4: Examine input markets, factor pricing, and income distribution.

CLO5: Evaluate strategic market behaviour, including oligopoly, Cournot, Bertrand, and Stackelberg models.

Unit I: Alternatives Theories of the Firm (Lectures: 10)

Modern Theories of the Firm: Evolution of the firm and objectives; Baumol's Sales-Revenue Maximization; Marris' Managerial Enterprise; Williamson's Managerial Discretion; Cyert–March Behavioral Theory; Full-Cost Pricing; Limit-Pricing Theories (Bain, Sylos-Labini, Modigliani, Bhagwati); Resource-Based Theory (Conner &Prahalad); Transaction-Cost Theory (Coase); Contemporary policy applications.

Unit II: Intertemporal Choice and Uncertainty (Lectures: 08)

Intertemporal Choice and Uncertainty: Discounting and Present Value; Intertemporal Consumption Decisions; Intertemporal Production Decisions; Investment Evaluation; Rate of Interest Determination under Uncertainty; Risk Attitudes (Risk Neutral, Risk Averse, Risk Lover); Expected Utility Hypothesis; Measures of Risk Aversion, Certainty Equivalence, and Cost of Risk; Applications in Investment and Consumption Planning.

Unit III: Economics of Information and Strategic Behavior (Lectures: 07)

Economics of Information and Strategic Behavior: Markets with Asymmetric Information; Moral Hazard and Adverse Selection; Signaling and Screening; Price Skimming; Principal–Agent Problem; Applications to Labor Markets, Insurance and Credit Markets; Policy Implications of Information Asymmetry.

Unit IV: General Equilibrium and Efficiency (Lectures: 08)

General Equilibrium and Efficiency: Partial vs. General Equilibrium Analysis; Walrasian Model (Assumptions, Existence, Uniqueness, Stability); Tatonnement and Non-Tatonnement Price Adjustment;

Arrow–Debreu Model; Fixed-Point Theorem (Conceptual); Efficiency in Exchange, Production, and Product Mix; Equity Considerations; Modern Policy Applications.

Unit V: Welfare Economics and Social Choice (Lectures: 07)

Welfare Economics and Social Choice: Pareto Optimality; Kaldor-Hicks Compensation; Scitovsky Paradox; Social Welfare Functions; Theory of Second Best; Arrow's Impossibility Theorem; Sen's Social Choice Theory; Rawlsian Justice; Welfare Implications under Modern Market Conditions.

Unit VI: Strategic Oligopoly and Market Models (Lectures: 05)

Strategic Oligopoly and Market Models: Cournot Model; Bertrand Model; Stackelberg Model; Nash Equilibrium; Dominant and Mixed Strategies; Cooperative vs. Non-Cooperative Games; Applications in Oligopoly Pricing, Market Coordination and Digital Platforms.

Recommended Books:

1. Henderson, J.M. &Quandt, R.E.,Microeconomic Theory: A Mathematical Approach, McGraw Hill
2. Varian, H.R., Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton
3. Pindyck, R.S. &Rubinfeld, D.L., Microeconomics, Pearson
4. Koutsoyiannis, A., Modern Microeconomics, Macmillan
5. Maddala, G.S. & Miller, E..Microeconomics: Theory and Applications, Tata McGraw-Hill
6. Mas-Colell, A., Whinston, M.D. & Green, J., Microeconomic Theory, Oxford University Press
7. Cyert, R.M. & March, J.G., A Behavioral Theory of the Firm, Prentice Hall
8. Sen, A. , Collective Choice and Social Welfare, Oxford University Press
9. Tirole, J. ,The Theory of Industrial Organization, MIT Press
10. Fudenberg, D. &Tirole, J.,Game Theory, MIT Press

Course Name: Advanced Macroeconomics II

Course Code: EC-CE-7434

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

The course is designed to provide the students a sound knowledge of macroeconomic issues which are central to modern macroeconomics- demand and supply of money, economic growth, business cycles and open economy. It incorporates theoretical framework of determining demand and supply of money in an economy. It intends to analyse the classical and modern growth models and explain the engines of economic growth helping in the formulation of policies. The course provides better understandings of economic fluctuations and stabilisation policies through business cycle theories and examines contemporary issues in saving, investment and balance of payments in international macroeconomics.

COURSE LEARNING OUTCOME:

CLO 1: Understand and comprehend the theoretical foundations of demand and supply of money and the factors determining it.

CLO 2: Attain the knowledge of economic growth models; identify the engines of growth and apply it in policy framework.

CLO 3: Analyse the business cycle models to understand causes of economic fluctuations and stabilisation policies.

CLO 4: Comprehend the knowledge of open economy macroeconomic variables and their interconnectedness and examine the effectiveness of policies in mitigating external shocks.

Unit I: Supply of Money and Demand for Money (Lectures: 12)

Supply of Money and its Components. Inside and Outside Money; Determinants of Money Supply. High-powered Money and the Money Multiplier, Concept of Money Illusion, Supply Determination in an Open Economy.

Demand for Money: Transaction Approach, Cambridge Cash Balance Approach, Keynes theory of demand for money-Determination of rate of interest: Equilibrium in the Money Market, Post Keynesian Approaches to Demand for Money: Inventory and Portfolio Balance Approaches to Money Demand; Friedman's Restatement of the Quantity Theory of Money.

Unit II: Theories of Economic Growth (Lecture: 15)

Harrod–Domar Framework: warranted, natural and actual growth rates; instability and growth dynamics, Solow Model: capital accumulation, steady state, transitional dynamics, Golden Rule condition, Role of Technical Progress in long-run growth, Convergence Debate: absolute vs. conditional convergence and structural determinants.

Engines of Economic Growth: learning-by-doing, human capital, innovation, productivity change. Modern Theories of Endogenous Growth; contrast with exogenous growth theory, Kaldor's Technical Progress Function: Technical progress and productivity growth, Accounting for Sources of Economic Growth: growth decomposition, Overlapping Generation Models and intertemporal allocation.

Unit III: Business Cycles (Lecture: 08)

Business Cycles as a Multiplier–Accelerator Interaction Process, Real Business Cycle Theory: technology shocks, labour market behaviour, neutrality of money, New Keynesian Economics: menu-cost model, coordination failure and price rigidities, Role of expectations in cyclical movements, Stabilisation policies during economic fluctuations.

Unit IV: Open Economy Macroeconomics (Lectures: 10)

Application of the Ramsey approach to savings and investment in an open economy, q-theory of investment and implications for capital accumulation, Steady-state dynamics of consumption, investment, capital stock and the current account, Impact of productivity shocks on external balance and macroeconomic performance.

Dornbusch's Overshooting Model and exchange rate dynamics, Monetary approach to the balance of payments, Structure and functioning of international financial markets.

Recommended Books:

1.Dornbusch, R. , Fischer, S. and Startz, R. (2010), Macroeconomics, McGraw Hill, 11th edition.

2.David, R. (2001), Advanced Macroeconomics, McGraw Hill International Edition

3.Salvatore, D. (2011), International Economics: Trade and Finance, John Wiley, 10th Edition.

4.Mankiw, N. G. (2010), Macroeconomics, Worth Publishers, 7th edition.

5. Froyen, R. T. (2013), Macroeconomics: Theories and Policies, Pearson, 10^{th} Edition.

Course Name: **Public Economics II**

Course Code: EC-CE-7444

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objectives:

The objective of the course is to enable students to understand the intricacies of public economics and provide a thorough understanding of rationale for public policy along with fiscal federalism. The course aims to provide comprehensive understanding of theories of public expenditure and principles of taxation.

COURSE LEARNING OUTCOME

- CLO 1: Understand and analyse the fiscal functions of the Government
- CLO 2: Understand the phenomenon of Public goods and Market Failure
- CLO 3: Evaluate the implications of public expenditure and public debt
- CLO 4: Comprehend the various aspects of taxation
- CLO 5: Analyse government budgeting processes and their role in economic policy
- CLO 6: Understand Fiscal Federalism and intergovernmental transfers

Unit-I Role of the state in the economy: (Lectures: 03)

Overview of Fiscal Functions; Fiscal policy for stabilisation

Unit II: Public Goods: (Lectures: 06)

The nature of Public goods; Public Goods and market failure; The efficient provision of public goods; The Theory of Clubs, Inter-local competition and Tiebout Hypothesis.

Unit-III: The Theory of Public Choice: (Lectures: 07)

Preferred political outcome of a voter and Downs' Rational Voter Hypothesis; Majority Rule and the Median Voter Model; Cyclical Majority Phenomenon and Arrows Impossibility

Theorem; Political Positioning and the Median Voter; Voting on multiple issues: Logrolling.

Unit-IV: Public Expenditure: (Lectures: 08)

Public Expenditures on non-marketed goods, fixed-quantity subsidy for marketed goods and

excise subsidy-their impact on allocation and distribution; Program Budgeting and Cost

effectiveness Analysis; Public Project Appraisal: Cost-Benefit Analysis; Public expenditure on Health Care, Education and Retirement Security: Rationale and Emerging issues

Unit-V: Public Revenue: (Lectures: 08)

Concepts of Tax Ratio, Buoyancy, and Elasticity of taxation, Tax Credit, Exemption and

Deduction, and Taxable Capacity; Excess burden- Lumpsum Tax versus Price Distorting Tax, Efficiency Loss Ratio of a tax; Partial versus General Equilibrium Analysis: Incidence of Excise Taxes and General Sales Tax; Modern view of incidence, Measures of incidence; The welfare cost of taxation; Goods and Services Tax (GST) and the Indian experience; Tax evasion and unaccounted money

Unit-VI: Public Budget and Deficit Financing: (Lectures: 08)

Structure of a public budget; Incremental and zero base budgeting, programme and performance budgeting, budget as an instrument of economic policy; Concepts of Budget Deficits; Burden of Deficit Finance- Ricardian Equivalence Theorem; Deficit financing and the Capital market: The Crowding Out Effect; The Welfare Cost of Deficit Finance; Rationale and methods of reducing deficits

Unit-VII. Fiscal Federalism: (Lectures: 05)

Principles of federal finance; inter-government resource transfer; Horizontal and Vertical fiscal balance; advantages and limitations of decentralisation; Problems of Centre-State Financial Relations in India

Recommended Books:

1. Browning E K & Browning J M, Public Finance and the Price System, Pearson

2. Cullis, John & Jones, Philip, Public Finance and Public Choice, McGraw Hill.

3. Hindriks, J., Myles,G., Intermediate Public Economics, MIT Press, 2006

4. Musgrave, R.A., and Musgrave, P.B., Public Finance in Theory and Practice, Mc-Graw Hill,

5. Bhatia, H.L., Public Finance (27thEdition) Vikas Publishing House Pvt.Ltd. New Delhi 2012

6. Jha, R,. Modern Theory of Public Finance. New Age International Publishers 2010

7. Rao, Hemlata. Fiscal Federalism –Issues and Policies, New Century Publications, New Delhi. 2006

8. Mithani, D.M., Modern Public Finance: Theory and Policy, Himalaya Publishing House, New Delhi, 2017

Course Name: Advanced Mathematical Analysis for Economics

Course Code: EC-CE-7454

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objectives:

This course introduces the Mathematical tools such as Differential Calculus and Economic Applications (Two or More Variables) with optimization constraints. Economic Applications of differential and difference equation in growth models are also being introduced in this course. The course explores Input-output analysis and Linear programming which are most important in the area of Inter industrial dependency and maximization of the profits and minimization of the cost of the firms. The course designed about Practical knowledge of mathematical concepts specially related to Input-output analysis and Linear Programming which are most important in economic decisions

COURSE LEARNING OUTCOME

CLO1: To learn mathematical methods those are essential for learning and working with economic theories and models.

CLO2: To exposure of students to practical and theory and to provide them systematic tools of qualitative and quantitative data analysis to acquire this knowledge and skill.

CLO3: To estimate and interpret Inter industrial relationships using Input-output analysis, also analyze maximization of profits and minimization of costs of the firms using Linear Programming method

CLO4: Economic Applications of Differential Equations – Dynamic Multiplier – Harrod- Domar Model.

CLO5: To find Particular Solution of Non-homogeneous Linear Equations – Linear First Order and Second Order Difference Equations with constant coefficients.

CLO6: To Formulate LPP – Basic and Feasible Solutions – Graphical Solution – Simplex Method – Duality in Linear Programming – Elements of Data envelop Analysis and its Applications.

Unit I: Utility analysis:(Lectures: 08)

Consumer's equilibrium - Review – Income and substitution effect- Price effect – Decomposition of price effect - Important results from Slutsky equation – Elasticity from Slutsky equation – Inter-temporal Choice – Weak and Strong ordering of Revealed preference hypothesis.

Unit II: Production function:(Lectures: 08)

Constrained cost minimization – Expansion path under Cobb-Douglas Production function – Properties of Constant Elasticity of substitution production function – Transformation of CES to C-D production function – Variable Elasticity of substitution production function.

Unit III: Differential and Difference Equations and Economic Applications:(Lectures: 10)

Differential Equations - Applications- Market price Functions- Harrod - Domar Model-Applications to Market models –Solow's Model -. Linear First Order and Second Order Difference Equations with constant coefficients – Market model with Stocks – Dynamic Multiplier – Multiplier Acceleration Model: Multiplier's Accelerator Interaction Model of Samuelson.

Unit IV: Input-Output Analysis:(Lectures: 09)

Assumptions – Importance - Technological Co-efficient Matrix – Closed and open Model – Solutions to two variable closed and open models – Hawkins-Simon Conditions – Dynamic Input-Output Model – Production Function Approach to Input - Output Model – Possible weaknesses and limitations of I – O model.

Unit V: Linear and Non-linear Optimization:(Lectures: 10)

Linear Programming – Assumptions – Formulation and solutions by graphic method and simplex method – Duality in LP and Economic interpretation – Difference between Primal and Dual. Non- linear Programming – Nature of the problem – Linear vs Non-linear programming – Graphic solution and Kuhn-Tucker conditions.

Recommended Books:

1. Mehta and Madnani, Mathematics for Economics, S. Chand and Sons, New Delhi, 2013

2. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill International Edition

3. Srinath Baruah, Basic Mathematics and its Application in Economics, Trinity, New Delhi, 2017

4. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002

5. James M. Handerson, Microeconomic Theory – A mathematical approach, VISIONIAS, 2020.

6. Allen, R.G.D., Mathematical Analysis for Economists, Macmillan India, Madras.

7. Allen, R.G.D., Mathematical Economics, ELBS, London.

8. Chow, G.C., Analysis and Control of Dynamics Economic Systems, John Wiley, New York.

9. J.M. Henderson and R.E. Quandt : Microeconomic Theory : A Mathematical Approach, McGraw – Hill.

COURSE NAME: Advanced International Economics
COURSE CODE: EC–CE–8414
Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objectives:

This course provides an advanced understanding of international trade and finance, focusing on income distribution effects of trade, strategic trade policies, international capital flows, exchange rate determination, regional economic integration, and emerging global economic issues. It equips students to analyze and evaluate contemporary international economic interactions and policy challenges.

COURSE LEARNING OUTCOME:

CLO 1: Understand and apply advanced trade models to analyze patterns of trade and income distribution.

CLO 2: Examine the interrelation of trade, growth, and development in a globalized economy.

CLO 3: Evaluate strategic trade policies and protection instruments for welfare and industrial outcomes.

CLO 4: Comprehend international capital flows, exchange rate determination, and financial market interactions.

CLO 5: Analyze regional integration and emerging global economic challenges.

Unit I: Advanced Trade Theories and Factor-Price Effects (Lectures: 08)

Stolper-Samuelson Theorem, Factor-Price Equalization, Modern Heckscher-Ohlin Model, Gravity Model of Trade, Overlapping Demand Theory, Vent-for-Surplus Approach, Global Value Chains, Intra-Industry Trade, Multinational Enterprises and Technology-Driven Trade.

Unit II: Trade, Growth, and Development (Lectures: 07)

Trade and National Income Distribution under Changing Factor Endowments, Rybczynski Theorem, Trade and Technical Progress including Neutral, Capital-Saving, and Labor-Saving Technical Progress, Prebisch-Singer Thesis, Trade, Human Capital, and Sustainable Development.

Unit III: Strategic Trade Policy and Protection (Lectures: 09)

Tariffs, Quotas, and Subsidies under Partial and General Equilibrium, Infant Industry Protection, Research and Development Subsidies, Anti-Dumping, Countervailing Duties, Safeguards, State Trading Monopolies, Theory of Customs Unions, Trade Creation and Diversion, Intra-Industry Trade, Non-Tariff Barriers, Contemporary Trade Disputes under World Trade Organization (WTO).

Unit IV: International Capital Flows and Financial Markets (Lectures: 09)

Exchange Rate Determination using Purchasing Power Parity (PPP), Interest Rate Parity (IRP), and Asset Market Approaches, Balance of Payments Adjustment using Absorption, Monetary, and Portfolio Approaches, International Capital Flows including Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI), Financial Globalization and Crises, Currency Risk, Hedging, and Speculative Behavior.

Unit V: Regional Economic Integration and Monetary Cooperation (Lectures: 06)

Regional Economic Integration: Concept and forms of regional integration; European Union (EU); Association of Southeast Asian Nations (ASEAN); South Asian Association for Regional Cooperation (SAARC); BRICS as an emerging economic bloc; Optimum Currency Areas; Monetary Integration and Regional Economic Cooperation.

Unit VI: Global Financial Governance and Emerging Economic Issues (Lectures: 06)

Global Financial Governance and Emerging Economic Issues: International Debt Crises and Debt Sustainability; Role of International Monetary Fund (IMF), World Bank and Group of Twenty (G-20); Digital Currencies; Financial Technology (FinTech); Cross-Border Economic Regulation and Contemporary Global Economic Challenges.

Recommended Books:

1.PaulKrugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Pearson, 10th edition, 2019.

2.Dominick Salvatore, International Economics: Trade and Finance, John Wiley, 10th edition, 2011.

3.BoSodersten and Geoffrey Reed, International Economics, Macmillan, 3rd edition, 1994.

4.H.G. Mannur, International Economics: Theory and Practice, Vikas Publishing House.

5.Chacholiades, M., International Trade: Theory and Policy, McGraw Hill.

6.Thomas A. Pugel, International Economics, Tata McGraw-Hill.

7.JagdishBhagwati, International Trade: Selected Readings, Cambridge University Press, 1981.

8.FrancisCherunilam, International Economics, Tata McGraw-Hill, 2006.

9.K.C. Rana& K.N. Verma, International Economics, Vishal Publishing Co.

10.R.D. Gupta & R.K. Lekhi, Keynes and Post-Keynesian Economics, Kalyani Publishers.

Course Name: Demography
Course Code: EC – CE –8424
Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

This course provides students with an understanding of population dynamics, demographic analysis, and their interaction with economic development, including fertility, mortality, migration, population composition, labor absorption in formal and informal sectors, and population policies.

COURSE LEARNING OUTCOME:

CLO 1: Understand the scope, importance, and applications of demography in economic and social analysis.

CLO 2: Explain classical and modern population theories and assess their policy implications.

CLO 3: Analyze fertility, fecundity, and nuptiality, and understand their determinants and measures.

CLO 4: Examine factors influencing mortality and maternal health.

CLO 5: Apply demographic techniques to population growth, projections, and composition analysis.

CLO 6: Analyze migration patterns, internal and international, and labor absorption in formal and informal sectors.

CLO 7: Assess population policies in India and globally and understand their economic relevances

Unit I: Theories of Population (Lectures: 05)

Malthusian Theory, Optimum Population Theory, Demographic Transition Theory, Becker &Easterlin Theories, Leibenstein's Selective Rationality Theory, Stable & Stationary Population.

Unit II: Vital Statistics and Population Dynamics (Lectures: 14)

Fertility: Concepts, determinants, measures (CBR, GFR, ASFR, TFR, GRR, NRR, Order-Specific Fertility Rate, Marital Fertility Rate, Child-Woman Ratio, Standardized Birth Rate, Completed Fertility Rate, Coale's Indices) ; Mortality: Determinants, measures, maternal mortality and health indicators ; Nuptiality: Concepts, measures, Singulate Mean Age at Marriage. Socio-economic and demographic implications of fertility, mortality, and nuptiality

Unit III: Migration and Labor Absorption (Lectures: 09)

Internal and international migration: concepts, types, determinants, consequences; Migration models: Lee's theory, Harris–Todaro model, Leibenstein's law, L-F-R model; Labor absorption in formal and informal sectors; Economic and social impacts

Unit IV: Population Projection (Lectures: 04)

Component method for population projection, projection of economically active population, rural–urban and regional projections

Unit V: Population Composition and Distribution (Lectures: 06)

Age–sex composition, population aging, dependency ratios, occupation, education, labor force participation (including female), spatial distribution, population density patterns, regional variations in population dynamics, India–China demographic comparison.

Unit VI: Population Policy and Development (Lectures: 07)

Population policies in developed and developing countries, evolution of population policy in India, recent initiatives: National Population Policy 2000, National Health Mission, demographic dividend and sustainable development linkages, Recent National Family Health Survey (NFHS) Findings and Their Implications for Population Policy and Development Planning.

Recommended Books:

1. Shryock, H.S. & Siegel, J.S., Methods and Materials of Demography, Academic Press
2. Thompson, W.S. & Lewis, D.T. ,Population Problems, McGraw Hill
3. Bogue, D.J., Principles of Demography, Prentice Hall

4. Bhende, A.A. &Kanitkar, T., Principles of Population Studies, Himalaya Publishing House

5. Agarwala, S.N., India's Population Problems, Tata McGraw-Hill

6. Gupta, S.P. & V.K. Kapoor, Fundamentals of Applied Statistics, Sultan Chand & Sons

7. Ramkumar, R. ,Technical Demography, Wiley Eastern

8. Barclay, G.W. ,Techniques of Population Analysis, John Wiley & Sons

9. United Nations (UNO) , Determinants and Consequences of Population Trends, United Nations

10 .Sinha, V.C. &Zacharia, E.,Elements of Demography, Allied Publishers

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

Course Name: Rural Development: An Indian Perspective

Course Code: EC – CE –8434

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course objective:

The course is designed to impart the learners the knowledge and experiences of rural development as rural development bears more significance than in the past, striving for better production, socio-economic equality and social upliftment in the present development paradigm. The course intends to incorporate the theoretical framework, principles and approaches of rural development enhancing learners' understanding about the subject matter. It incorporates various dimensions of rural governance in India including its historical context from the British period. The course aims to assess the strategies to achieve socio-economic development in rural India, examine the challenges emerging in rural context, evaluate the effectiveness of the government flagship initiatives and technological innovations in ameliorating the challenges and ensuring robust economic development.

COURSE LEARNING OUTCOME:

CLO 1 : Understand and comprehend the theoretical foundations of rural development.

CLO 2 : Develop the idea about the historical evolution of rural governance in the colonial period and understand the role of institutions (e.g., Panchayati Raj), decentralisation, social capital, SHGs and NGOs in shaping rural development outcomes.

CLO 3 : Use economic data to analyse the impact of strategies of rural development in diversifying rural livelihoods and stabilising socio-economic development.

CLO 4: Judge the efficacy of Government of India initiatives for rural development in addressing social, economic and environmental challenges in rural India.

CLO 5: Assess the impact of technological innovation in rural transformation.

Unit 1: Theoretical foundations of rural development (Lectures: 10)

Rural Development: Concepts, Approaches: Top-Down and Bottom-Up; Sen-Capability Approach: Expanding people's Freedom and Capabilities for Rural Development

Classical and modern theories of rural development: Lewis-dualistic economy, The FEI and RANIS Model of Economic Growth. Harris – Todaro's Model of Rural – Urban Migration and Unemployment, Schultz's Transformation of Traditional Agriculture.

Unit 2: Institutions, Governance and Decentralization in Rural India (Lectures: 10)

Rural Governance in the British period, transition from colonial administration, Panchayati Raj Institution –evolution, structure and functions ;Constitutional amendments for Panchayati Raj system; Decentralisation of power in rural India, Participatory Decentralized planning , social capital, collective action and NGO-Panchayat interface; Women Empowerment, SHGs and microfinance.

Unit 3: Challenges of rural development in India (Lectures: 08)

Dimensions of rural unemployment and poverty: economic inequality, rural-urban wage gap, rural-urban migration, housing, drinking water, sanitation, rural energy; soil health and water management; service delivery System in rural areas: infrastructure, health, education.

Unit 4: Strategies for rural development in India (Lectures:10)

Agricultural policy and Rural Development, Role of NABARD, Diversification of rural economy: livelihood diversification, rural farming activities-livestock resources, blue revolution, white revolution, horticulture, floriculture.

Rural industries-definition, classification and nature; relevance in rural development; problems of rural industrialisation, policies; non farm rural economic activities.

Unit 5: Policies and technological innovation in rural India (Lectures: 07)

Policies and programmes for rural development: MNREGA, NRLM, PM-KISAN, PMAY-G, PM-Ujjwala; Indira Gandhi National Old Age Pension, their impacts on rural India

Digital transformation of rural India for inclusive growth: key initiatives and challenges; Direct Benefit transfer, Common Service Centres, fintech and rural finance.

Recommended Books:

1. Sen, A. (1999). Development as freedom. Oxford University Press.

2. Hebinck, P., Schneider, S. et al (2014): Rural Development and the Construction of New Markets (Routledge ISS Studies in Rural Livelihoods)

3. Bardhan, P. and Mookherjee, D. (Eds.). (2010). Decentralization and local governance in developing countries: A comparative perspective. MIT Press.

4. Ministry of Rural Development, India – Schemes & Data: https://rural.nic.in

5. Dash, B.M. (2010): Rural development in India. New Delhi Publisher, New Delhi.

6. Saha, S. K. and Ravi, M. R. (Eds.). (2019). Rural Technology Development and Delivery.Springer.

Course Name: Econometric Methods

Course Code: EC-CE-8444

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objectives:

The objective of this course is to provide students with the knowledge of the core techniques of Econometric analysis which forms the basis for the understanding and critical assessment of published work in empirical econometrics. The curse will also develop the analytical skills required to demonstrate theoretical asymptotic properties of different Econometric estimation and testing procedures under weakened Modeling assumptions. Basic concept of Auto regressive distributed lag model (ARDL) will be developed which will be helpful for future research work with time series data and prepare students to develop own thinking /opinion regarding current national or international policies and issues, create awareness to become a rational and an enlightened citizen so that they can take the responsibility to spread the governments' initiatives/schemes to the rural areas for the upliftment of the poor or vulnerable section of the society for inclusive growth. One of the main objectives is to motivate the learners to conduct investigations of multifaceted problems by applying research-based knowledge and different types of research methods including conducting of primary research.

COURSE LEARNING OUTCOME:

CLO1: Acquire adequate competency in the frontier areas of economic theory and methods.

CLO2: Formulate and estimation of a multiple regression model and analyze the impact of violation of various assumptions of OLSE.

CLO3: Make decision about the statistical significance of individual explanatory variable and also over all models.

CLO4: Interpret and critically evaluate applied Economic Research literature; demonstrate programming skills and numerical methods.

CLO5: Apply methods learned to address policy and business decision questions.

CLO6: To develop self employable ability and to apply knowledge for several Companies like Data analyst, Business Managers and other Researchers.

Unit I: The General Linear Model (Lecture: 08)

Review of Assumptions of OLSE – Use of Matrix Algebra in a K- variable model - Estimation and Properties of Estimators: Un-biasness - BLUEs and Tests of significance of estimates – Analysis of Variance (ANOVA) – Assumptions – Uses and Techniques of Analysis of Variance.

Unit II: Dummy Variables (Lectures: 10)

Regression on dummy (qualitative) variables with two categories, with more than two categories - Intercept shifters - Dummy variable trap - Interaction of two categorical variables - Interaction of categorical and continuous (quantitative) variables- slope shifters - Piecewise linear regression model - Chow test for cross-section data and for time-series data (test structural stability of regression models).

Unit III: Time series and Panel Data (Lectures:10)

Time series Data – Definitions and Characteristics – Univariate Time Series Models – Autoregressive (AR) Models – Moving Average (MA) Models – Autoregressive and Moving Average (ARIMA) Models – Stationary and Trend Analysis – Panel Data Analysis – Meaning and Characteristics - Types of Panel Data (Concepts only) – Advantages of Panel Data.

Unit IV: Errors in variables (Lectures:08)

Introduction – Consequences of applying OLS – Estimation methods where errors in variables are present – Classical approach - Instrumental variable method – Grouping method – Geometric Average of Direct and Inverse Regression Estimates –Durbin's Ranking Method – Ranks as Instruments.

Unit V: Simultaneous Equation Models (Lecture: 09)

Structural equation models – Why Simultaneous Equation Model - Specification – Endogenous -- Exogenous and Predetermined variables - Simultaneity bias - Identification: Structural versus Reduced form - rank versus order condition, exact and over identifications – Problem of Identification – Reformulated statement.

Recommended Books

1.Gujarati and Porter, Basic Econometrics, Fifth Edition, McGraw Hill/Irwin, 2009.

2.Wooldridge, J., Introductory Econometrics: A Modern Approach, 2015, Nelson Education.

3.Johnston J. and DiNardo, J. Econometric Methods. 4th Ed. McGraw-Hill 1997.Greene

4.Ramanathan, Ramu, Introductory Econometrics with Applications, 5th edition, 2002, Thomson Asia Pte Ltd., Singapore.

5.Stock, James H., and Mark W. Watson (2006): Introduction to Econometrics, Second Edition, (Addison-Wesley Series in Economics).

6. Greene, William H. Econometric Analysis. 6th Edition, Prentice Hall. 2008.

Course Name: Development Economics II

Course Code: EC – CE –8454

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

The course aims to familiarize the students with the contemporary issues of development economics. It will help students to understand how development economics is related to health, education and their contribution to sustainable economic growth. The course explores the importance of institutions, governance quality, and policy frameworks and their pivotal role in influencing development trajectories.

COURSE LEARNING OUTCOMES:

CLO1: Explain the relationships among land, labour, and agricultural productivity, and assess the role of rural credit and microfinance in poverty alleviation and development. It also focuses on importance of development financing.

CLO2: Evaluate the economic significance of health and education as forms of human capital, and apply cost–benefit techniques to assess their social and private returns.

CLO3: Critically analyze how institutions, governance, and political systems shape development outcomes and mitigate or exacerbate corruption and government failure.

CLO4: Examine the effects of trade liberalization, aid, and terms of trade on the growth and welfare of less developed countries using relevant theoretical frameworks.

Unit I: Factors in the Development process (Lectures: 15)

Land market: Relationship between land size and productivity; technology, insurance, labour and farm productivity; principal –agent theory- risk, moral hazard and the agency problem in land market; Segmentation in labour market and labour tying, labour market discrimination; rural credit markets- characteristics, informational asymmetries in rural credit market - types of default, and credit rationing, the lender's risk hypothesis

Unit II: Financing Economic Development (Lectures: 08)

Domestic Sources: Role of Private Savings, forms of savings; fiscal policy and Taxation, Financing through Money Creation; The Dual Gap Analysis: Saving-Investment Gap and the Foreign Exchange Gap; Foreign Borrowing and the problem of debt accumulation and Debt Servicing; Private Foreign Investment: Portfolio and Direct Investment; Effects on Host and Investing Countries – Direct Investment and Exploitation

Unit III: Health and Education for Economic Development (Lectures: 10)

Health as human capital: Significance for economic development; cost benefit and analysis of health care policies and facilities; Education and Economic Development, Cost –Benefit Analysis of Education, Measurement of Costs, Measurement of Benefits, The Rate of Return of Investment in Education, Social

Rate of Return to Investment in Education, Public and Private, Financing of Education: Criteria for Adequacy of Education Finance, Traditional as well as Modern Concept of Adequacy, Financing of Education and Equity

Unit IV: Role of Institutions in development (Lectures: 06)

Introducing institutions, institutions as a determinant of growth; the determinants of democracy; alternative institutional trajectories and economic development; regional variation in state institutions, state ownership and regulation; government failure and corruption

Unit V: Trade and Development (Lectures: 06)

Gains from trade, Trade and Aid, trade liberalization and growth, Terms of Trade and LDCs:

Prebisch, Singer and Myrdal's Views

Recommended Books

1. Basu, K., "Analytical Development Economics:", OUP.

2.Meier, G.M., "Leading Issues in Economic Development", OUP.

3.Roy, D., "Development Economics", OUP.

4.Thirlwal, A. P. "Growth and Development" Palgrave

5.Todaro, M.P., "Development Economics", Pearson.

6.UNDP, "Human Development Reports", OUP.

7.World Bank, "World Development Reports", OUP

8.Aghion, P and Steven N Durlauf (ed), "Handbook of Economic Growth", Volume 1A,

Elsevier

MINOR

Programme Specific Outcome of Bachelor of Arts – ECONOMICS: Minor

PSO No.	Outcome
PSO–1	Understand the basic concepts, ideas and theories of economics
PSO–2	Develop critical thinking, analytical ability, collaboration and other cognitive skills
PSO–3	Perceive, appreciate, comprehend and evaluate economic policies and practices
PSO–4	Develop and cultivate interest in pursuing higher studies in economics, including research
PSO–5	Acquire competency and capability to takie up careers in various sectors like banking, industry etc.
PSO–6	Develop and cultivate entrepreneurial skills for self employment
PSO-7	Enhance the awareness about the prevalent social issues
PSO-8	21st Century skills

LIST OF COURSES:

Semester	Course Name	Course Code
1	Introduction to Economics I	EC – MN – 1114
2	Introduction to Economics II	EC – MN – 2114
3	Economic Theory	EC – MN – 3214
4	Issues in Indian Economy	EC – MN – 4214
5	Money, Banking and Public Finance	EC – MN – 5214
6	Development Economics	EC – MN – 6214
7	Environmental Economics	EC – MN – 7314
8	International Trade	EC – MN – 8314

Course Learning Outcome (CLO)

Semester	Course Name & Code	Course Learning Outcome (CLO)	
1	Introduction to Economics I EC – MN – 1114	CLO - 01	Understand and comprehend basic ideas of microeconomics, macroeconomics, public finance.
		CLO - 02	Develop the ideas of Indian economy and understand the basic issues related to development of Indian economy.
		CLO - 03	Understand and enhance the ability to analyze real micro and macroeconomic variables.
		CLO - 04	It will develop the basic ideas of public finance and hereby acquaint the learners with how an economy works with finance.
2	Introduction to Economics II EC – MN – 2114	CLO - 01	Understand and comprehend basic ideas of fundamental of statistics like measures of central tendency, measures of dispersion, index number.
		CLO - 02	Understand the basic ideas of development in global scenario and understand the basic measurements of growth and development used in the global context
		CLO - 03	Comprehend and enhance the basic knowledge of financial system so that working of the economy can be better understood
		CLO - 04	It will develop the ideas of international trade and hereby acquaint the learners with how an economy works with other economies of the world.
3	Economic Theory EC – MN – 3214	CLO-01	Understand and analyze Market Equilibrium and Information Economics
		CLO-02	Comprehend basic macroeconomic concepts.
		CLO-03	Apply microeconomic concepts in real life situations.
4	Issues in Indian Economy EC – MN – 4214	CLO-01	Understand the evolution of Indian economy since independence
		CLO-02	Evaluate the sector-specific policies for Indian economy.
		CLO-03	Analyze the factors accelerating development of Indian economy
		CLO - 04	Analyze the causes and evaluate the policies for alleviating the challenges for Indian economy-poverty, inequality and unemployment.

5	Money, Banking and Public Finance EC – MN – 5214	CLO-01	Understand the conceptual/theoretical and empirical issues of money in an economy
		CLO-02	Analyze the functions and role of central bank and commercial banks
		CLO-03	Evaluate the basics of financial economics
		CLO - 04	Understand the basic fiscal functions of the economy
		CLO - 05	Examine the objectives of Fiscal Policy
		CLO - 06	Comprehend the efficiency and equity aspects of taxation and public expenditure
		CLO - 07	Evaluate the different aspects and the implications of public debt
6	Development Economics EC – MN – 6214	CLO-01	Understand the concepts of economic growth, development and underdevelopment and the factors responsible for the process.
		CLO-02	Understand and critically evaluate the growth and development theories and also various development strategies and their implications in different economies of the world.
		CLO - 03	Develop awareness on the real meaning of development and underdevelopment and comprehend how poverty, inequality and other obstacles are linked to the process of development.
7	Environmental Economics EC – MN – 7314	CLO - 01	Develop a comprehensive knowledge and understanding of the issues related to economy and environment.
		CLO - 02	Acquaint students with the issues related to market failure of environmental goods and the instruments which can prevent the damages of market failure of environmental goods.
		CLO - 03	Develop theoretical knowledge of resource economics so as to enable learners to understand how an economy should use natural resources in an optimum way, such that an economy can take up the path of sustainable development.
		CLO - 04	Help students to understand the current dynamics of global environmental issues and concerns.

8	International Trade EC – MN – 8314	CLO - 01	Comprehend modern international trade theories and their applications.
		CLO - 02	Understand the determinants of trade patterns and gains from trade.
		CLO - 03	Analyze the effects of trade policies and economic integration.
		CLO - 04	Develop an awareness of contemporary issues in international trade.

Mapping of Programe Outcome (PO) and Course Learning Outcome (CLO):

Attributes: Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	Programme Outcome (APO)										
		APO-1	APO-2	APO-3	APO-4	APO-5	APO-6	APO-7	APO-8	APO-9	APO-10	APO-11
EC-MN-1114	CLO–1	3		2	3	2		3	3	2	3	
	CLO–2	3		3	3	2	2	2	2	2	3	
	CLO – 3	3		2	2	2	2	2	3	3	3	
	CLO – 4	3		2	3	2		3	3	2	3	
EC-MN-2114	CLO–1	3			3	2		2		2	3	
	CLO–2	3	2	2	3	2	2	3		2	3	
	CLO – 3	3	2	2	2	2		2		3	3	
	CLO – 4	3	2		3	2		3		2	3	
EC-MN-3214	CLO–1	3	2	2	2	2		2	2	3	2	
	CLO–2	3		3			3	3	3	2	3	
	CLO – 3	3	2	2	2	2		2	2	3	3	2
EC-MN-4214	CLO–1	3		2	3			2		3	3	2
	CLO–2	3			2			3	2	3	3	3
	CLO – 3			3	3	2			2	3		2
	CLO – 4			3	2	3	2			2	3	
EC-MN-5214	CLO–1	2		3	3	2		3	2	3	3	3
	CLO–2	3		3	3	2		3	2	3	3	3
	CLO – 3	2		3	3	2		3	2	3	3	3
	CLO – 4	2		3	3	2	2	3	2	3	3	3
	CLO – 5	2		3	3	2	2	3	2	3	3	3
	CLO – 6	2		3	3	2		3	2	3	3	3
	CLO – 7	2		3	3	2		3	2	3	3	3
EC-MN-6214	CLO–1	3	2	2	2	2	2	2		3	3	
	CLO–2	3	2	2	2	2	2	2		3	3	
	CLO – 3	3	2	2	2	2	2	2		3	3	
EC-MN-7314	CLO1	3	3	3	2	2	2	3	3	2	2	3
	CLO2	3	2	3	3	3	3	3	2	2	3	2
	CLO3	3	2	3	3	3	3	3	2	2	3	3
	CLO4	3	3	3	2	3	3	3	3	3	3	3
EC-MN-8314	CLO 1	3	3	2	2	2	2	3	2	3	3	3
	CLO 2	3	3	2	2	2	2	2	2	3	3	3
	CLO 3	3	3	3	3	2	2	2	2	3	3	3
	CLO 4	3	3	2	3	2	3	3	2	3	3	3
	CLO 5	3	3	2	2	2	3	2	2	3	3	3

Mapping of Programe Specific Outcome (PSO) and Course Learning Outcome (CLO)

Attributes: Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	Programme Specific Outcome (PSO)							
		PSO-1	PSO–2	PSO-3	PSO-4	PSO-5	PSO-6	PSO-7	PSO-8
EC-MN-1114	CLO–1	3	3	2	2	2	2		2
	CLO–2	3	3	2	3	3	2	3	3
	CLO – 3	3	3		2		2	2	3
	CLO – 4	3	3	2	3	2	2	3	3
EC-MN-2114	CLO–1	3	3		2		2		3
	CLO–2	3	3	3	2			3	2
	CLO – 3	3	2	2	2	2	2		3
	CLO – 4	3	2	2	3		2	2	3
EC-MN-3214	CLO–1	3	2	2	3		2	2	3
	CLO–2	3	3		3		2		2
	CLO – 3	3	2	2	3	2	2		4
EC-MN-4214	CLO–1	3	2	3	3				2
	CLO–2	3		3	3	3	3		3
	CLO – 3	2	3	2	3		3	3	3
	CLO – 4	3	3	3	3		2	3	3
EC-MN-5214	CLO–1	3	3	3	3	3	3	3	2
	CLO–2	3	3	3	3	3	3	3	3
	CLO – 3	3	3	3	3	3	3	3	3
	CLO – 4	3	3	3	3	3	3	3	2
	CLO – 5	3	3	3	3	3	3	3	2
	CLO – 6	3	3	3	3	3	2	3	2
	CLO – 7	3	3	3	3	3	2	3	3
EC-MN-6214	CLO–1	3	3	3	3			2	2
	CLO–2	3	3	3	3			2	4
	CLO – 3	3	3	3	3			2	
EC-MN-7314	CLO1	3	3	2	3	2	2	3	2
	CLO2	3	3	1	3	2	3	3	2
	CLO3	3	3	2	3	1	3	3	3
	CLO4	3	3	2	3	2	2	3	2
EC-MN-8314	CLO1	3	2	3	2	2	2	2	2
	CLO2	3	2	3	3	2	2	2	2
	CLO3	3	2	3	3	2	2	2	3
	CLO4	3	2	3	3	2	3	2	2

COURSE NAME: Introduction to Economics I

COURSE CODE: EC – MN – 1114

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The course is designed to provide the students basic ideas of microeconomics, macroeconomics, public finance and Indian economy which will build the basic foundation of economics among beginners. The students will be encouraged to think like an economist and the course will illustrate as to how the concepts of microeconomics, macroeconomics, public finance and Indian economy can be applied to analyze real-life situations.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of microeconomics, macroeconomics, public finance.

CLO2: Develop the ideas of Indian economy and understand the basic issues related to development of Indian economy.

CLO3: Understand and enhance the ability to analyze real micro and macro economic variables.

CLO4: It will develop the basic ideas of public finance and hereby acquaint the learners with how an economy works with finance.

COURSE OUTLINE:

Unit I: Introduction: (Lectures: 10)

Problem of Scarcity and Choice: scarcity, choice and opportunity cost, production possibility frontier; Demand and Supply: law of demand, determinants of demand, shift in demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shift in supply versus movements along a supply curve, market supply, market equilibrium; Elasticity: price, income and cross elasticities.

Unit II: Consumer Theory: (Lectures: 08)

Concept of utility, Marshallian utility analysis, Diamond -water paradox, Indifference curves- its properties, derivation of demand curve from indifference curve, budget constraint; Consumer’s equilibrium; price, income and substitution effects.

Unit III: **Revenue curves in different forms of market (Lectures: 04)**

Revenue: Concept of Revenues; Total, Average and Marginal Revenues, Market and its various forms, Revenue curves under perfect and imperfect competition.

Unit IV: **Introduction to Macroeconomics: (Lectures: 07)**

Definition, scope and subject matter of macroeconomics; National Income Accounting, Concepts of national income, methods and problems of calculating national income, nominal and real income; Green GDP; Circular flow of Income (In closed economy).

Unit V: **Public Finance: (Lectures: 08)**

Nature and scope of public finance; Basic concepts of Public Revenues, Definition of Tax, Direct and indirect taxes, Proportionate, Progressive and Regressive Taxation; Public expenditure and Public Debt.

Unit VI: **Indian Economy: (Lectures: 08)**

Characteristics of Indian economy; Indian Economy since Independence: Issues of Economic development- Rural development, human capital formation, poverty, unemployment; Basic demographic features- age, sex composition, density, urbanization, Work force and participation rate.

RECOMMENDED BOOKS:

1. N C Ray, Microeconomic Theory, MacMillan, 2000.
2. Dominick Salvatore, Microeconomic Theory, Schaum's Outline Series, McGraw Hill, 2001
3. H. L. Ahuja, Advanced Economic Theory, S Chand Publishers, 2017
4. Soumyen Sikdar, Principles of Macroeconomics, Oxford, 2020
5. A.N. Agarwal: Indian Economy - Problems of Development and Planning, New Age International Publishers, 43rd edition, 2019
6. B. V. Pathak: Indian Financial System, Pearson Education, Singapore, 2018 fifth edition

COURSE NAME: Introduction to Economics II

COURSE CODE: EC – MN – 2114

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The course is designed to provide the students basic ideas of statistics like measures of central tendency, measures of dispersion, index number. It will also enable students to understand basics of development economics, international trade and financial system of Indian economy, which will build the basic foundation of economics among beginners. The students will learn to think like an economist and the course will illustrate how the concepts of statistics, development economics, international trade and financial system can be applied to analyze real-life situations.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of fundamental of statistics like measures of central tendency, measures of dispersion, index number.

CLO2: Understand the basic ideas of development in global scenario and understand the basic measurements of growth and development used in the global context.

CLO3: Comprehend and enhance the basic knowledge of financial system so that working of the economy can be better understood.

CLO4: It will develop the ideas of international trade and hereby acquaint the learners with how an economy works with other economies of the world.

COURSE OUTLINE:

Unit I: Basic Statistics :(Lectures: 15)

Collection of data- Sources of data, primary and secondary sources; methods of statistical enquiry- concepts of population and sample, Census and sample methods, population parameter and sample statistic

Measures of central tendency- Mean: Arithmetic mean (Simple and Weighted), Geometric mean, harmonic mean; Median, Mode.

Measures of Dispersion - Range, Inter-quartile deviation, mean deviation, standard deviation, variance

Unit II: **Index Number :(Lectures: 08)**

Meaning, Types and characteristics of Index Number; construction, uses and limitations of Index numbers; Consumer price index, cost of living index, industrial production index, agricultural production index, Sensex (concept only)

Unit III: **Introduction to Development Economics :(Lectures: 08)**

Economic growth and development, measuring development- Per Capita Income (PCI), Physical quality of Life Index (PQLI), Human Development Index (HDI), Measuring economic inequality- Lorenz Curve, Gini Coefficient; Concept of sustainable development

Unit IV: **Financial System :(Lectures: 07)**

Financial System- Definition, components and functions; Types of Financial System- formal and informal; Indian Financial System- an overview

Unit V: **International Trade :(Lectures: 07)**

Subject matter and scope of International Trade; distinction between internal and international trade; Classical Theories of International Trade- Absolute Advantage Model of Adam Smith and Comparative advantage Model of David Ricardo

RECOMMENDED BOOKS:

1. B. V. Pathak: Indian Financial System, Pearson Education, Singapore, 5th ed. 2019
2. Debraj Roy: Development Economics, 1999
3. Michael P.Todaro, Stephen C. Smith: Economic Development, 13th ed. 2020
4. Padmalochan Hazarika: Statistical Methods for Economics, Ashok book Stall, 2018
5. S.C. Gupta: Fundamentals of Statistics, Himalayas Publishing House, Seventh Edition, 2018
6. S.K. Misra, V K Puri: Economics of Development and Planning - Theory and Practice, Himalaya Publishing House, 2017
7. V.K. Puri and S.K. Mishra: Indian Economy, Himalaya Publishing House, 41st edition, 2023
8. Rana and Verma, International Trade, Kalyani Publishers, 2017

COURSE NAME: Economic Theory

COURSE CODE: EC- MN - 3214

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

This course is designed to provide students with a sound knowledge of economic theory to formally analyze the behavior of individual agents. It also provides basic ideas on macroeconomic variables like income, employment, consumption, investment and so on. The emphasis will be on thinking like an economist and the course will help learners to apply economic concepts to analyze real life situations and find solutions.

COURSE LEARNING OUTCOME:

CLO1: Understand and analyze Market Equilibrium and Information Economics

CLO2: Comprehend basic macroeconomic concepts.

CLO3: Apply microeconomic concepts in real life situations.

COURSE OUTLINE:

Unit I: Consumer's Behaviour and Information Economics :(Lectures: 08)

Review of Indifference Curve Analysis, Violation of the basic premises of Indifference Curve Approach; Inter-temporal Choice, risk under choice; risk neutral, risk averse and risk lover, Adverse Selection and Moral Hazard, Externalities (Concept only)

Unit II: Theory of Production and Cost :(Lectures: 12)

Total, Average and Marginal Product of a Single Variable Factor; Production Function with Two Variable Factors, Isoquant, Marginal Rate of Technical Substitution, Elasticity of Substitution; Returns to a factor and returns to scale, The Least Cost Combination of Inputs, Expansion Path, Concept of Cost and Cost Curves-Short and Long Run, Multi Product Firm- Production Possibility Frontier.

Unit III: Market Equilibrium: (Lectures: 10)

Perfect Competition: Characteristics, firms and industry's equilibrium.Monopoly: Pure and Simple Monopoly, Price-Output Determination, Price Discrimination: Degree of price discrimination, equilibrium in price discrimination. Monopolistic

Competition: Its different Characteristics, Price-Output Determination. Oligopoly and Duopoly Market: Kinked Demand Curve.

Unit IV: Input Markets: (Lectures: 07)

Input Markets: Theory of Distribution, personal and functional distribution, Ricardian theory of rent, Basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); income-leisure trade off, collective bargaining, risk and uncertainty bearing theory of profit.

Unit V: Macroeconomic Equilibrium and Basic Macro Economic Concepts :(Lectures: 08)

Say's Law of market, Keynes' Approach of Aggregate Effective Demand and Determination of Income and employment; Meaning of consumption function: Average and Marginal Propensity to Consume; Factors influencing Consumption Function, Concept of investment: Autonomous and Induced, Multiplier Analysis.

RECOMMENDED BOOKS:

1. N C Ray, Microeconomic Theory, MacMillan
2. G.S. Maddala and Ellen Miller, Micro Economic Theory and Application, Tata McGraw-Hill.
3. H.L. Ahuja, Advanced Economic Theory , S. Chand
4. A. Koutsoyanis, Modern Microeconomics, McMillan
5. Rana and Verma, Macreconomic Analysis, Vishal Publishing Company, Jalandhar,

COURSE NAME: Issues in Indian Economy

COURSE CODE: EC- MN - 4214

Total Credits: 4 (Theory: 3 + Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to provide the learners with understanding of the evolution of Indian economy since independence, factors of development and policy-impacts on alleviating poverty, inequality and unemployment.

COURSE LEARNING OUTCOME:

CLO 1: Understand the evolution of Indian economy since independence

CLO 2: Evaluate the sector-specific policies for Indian economy

CLO 3: Analyze the factors accelerating development of Indian economy

CLO 4: Analyze the causes and evaluate the policies for alleviating the challenges for Indian economy-poverty, inequality and unemployment.

COURSE OUTLINE:

Unit I: Indian Economy since Independence: (Lectures: 12)

State of Indian economy at independence: causes of backwardness and implications; Economic Planning in Pre- Reforms era-Goals, Strategies and Performance

Economic Reforms in the Indian Economy since 1991-Liberalisation, Privatization, Globalization: Features and Impacts; Regional imbalance; Structural changes in National Income; Formation of NITI Aayog: Functions

Unit II: Sectoral Development in India: Agriculture, Industry and Services :(Lectures: 12)

Agriculture: Production and productivity; Land Reforms, Green Revolution, Agricultural credit, market and pricing

Industry: Production trends; Role of MSMEs in Indian Economy; Public sector; Foreign investment

Services: Growth of Service Sector: Share in Employment and Current Challenges, Jobless Growth

Unit III: **Factors in Indian Economic Development :(Lectures: 10)**

Population, Capital and Technology; Human Capital Formation in India; Demographic trends; Urbanization, Savings and Investment, Mobilization of Savings.

Unit IV: **Problems Poverty, Inequality and Unemployment in India :(Lectures: 11)**

Poverty: Causes, Consequences, Poverty Trap, Poverty Alleviation Programmes and their Impact: Appraisal; Economic Inequality: Causes and Implications for Indian Economy; Unemployment: Types, Causes, Employment Schemes and their Appraisal

RECOMMENDED BOOKS:

1. Michael P Todaro and Stephen Smith. Economic Development, Pearson, 11th edition, 2011.
2. Uma Kapila, Indian Economy since Independence, Academic Foundation,
   19th edition, 2009.
3. B.A. Prakash, (ed), The Indian Economy Since 1991, Second Edition, PEARSON, 2012.
4. United Nations Development Programme, Human Development Report
   2010, Palgrave Macmillan, 2010.
5. Government of India, Economic Survey (latest)

COURSE NAME: Money, Banking and Public Finance

COURSE CODE: EC-MN-5214

Total Credits: 4 (Theory: 3+Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

Understanding the fundamentals of money and banking, as well as the financial system of the country. To provide a comprehensive understanding of public finance and look into the efficiency and equity aspects of taxation and expenditure.

COURSE LEARNING OUTCOME:

CLO1: Understand the conceptual/theoretical and empirical issues of money in an economy

CLO2: Analyze the functions and role of central bank and commercial banks

CLO3: Evaluate the basics of financial economics

CLO4: Understand the basic fiscal functions of the economy

CLO5: Examine the objectives of Fiscal Policy

CLO6: Comprehend the efficiency and equity aspects of taxation and public expenditure

CLO7: Evaluate the different aspects and the implications of public debt

COURSE OUTLINE:

Unit I: Money: (Lectures: 06)

Nature, functions, significance and classification of money. role of money in Capitalist, Socialist and Mixed economies. monetary standards. Gresham's Law. systems of note issue.

Unit II: Concept of money in a modern economy: (Lectures: 05)

Monetary aggregates; demand for money; quantity theory of money; liquidity preference and rate of interest; money supply; monetary policy.

Unit III: Financial Markets and Financial institutions: (Lectures: 10)

Money and Capital Markets. Commercial Banking: meaning, functions, credit creation – process, purpose and limitations; recent reforms in Banking Sector in

India; Central Banking: meaning, necessity, principles, comparison and functions; objectives and methods of credit control; role and functions of the Reserve Bank of India; monetary management in India.

Unit IV: Public Finance: (Lectures: 03)

Meaning, nature, scope, role and importance; Principle of Maximum Social Advantage.

Unit V: Fiscal Policy: (Lectures: 03)

Meaning, objectives in a developing Economy

Unit VI: Public Expenditure: (Lectures:05)

Meaning, scope, reason & canon, aims and objectives, classification, principles and importance; effects of Public Expenditure

Unit VII: Public Revenue: (Lectures:07)

Meaning, sources and classification; Taxation: meaning, characteristics, objectives, canons and elements of a Good Tax System; kinds of taxes. principles of taxation, impact, incidence and shifting of taxes; taxable capacity, effects of taxation

Unit VIII: Public Debt :(Lectures:06)

Meaning, objectives and sources; effects and burden of public debt. methods of debt redemption; role of public debt in developing countries, management of Public debt; Deficit Financing.

RECOMMENDED BOOKS

1. M. R. Baye and D. W. Jansen, Money, Banking and Financial Markets, AITBS, 1996
2. Rakesh Mohan, Growth with Financial Stability- Central Banking in an Emerging Market, Oxford University Press, 2012
3. N. Jadhav, Monetary Policy, Financial Stability and Central Banking in India, Macmillan, 2006.
4. Sampat Mukherjee, Macro Economics: Global Text, New Central Book Agency
5. S.B. Gupta, Monetary Economics: Institutions, Theory and Policy, S. Chand and Company Ltd., 2003.
6. M.L. Jinghan, Money, Banking, International Trade and Public Finance, Vrinda Publications.

7. Bharati V Pathak, Indian Financial System: Markets, Institutional and services, Pearson Education India, 3rd edition, 2011.

8. Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, Mc-Graw Hill, 1989

9. Mahesh Purohit, “Value Added Tax: Experience of India and Other Countries”, Gayatri Publications, 2007.

COURSE NAME: Development Economics

COURSE CODE: EC-MN-6214

Total Credits: 4 (Theory: 3+Practical/Tutorial: 1)

THEORY: 3 CREDITS

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to introduce the students to the basic ideas of Development Economics. The core focuses are on the concepts and meaning of development. The emphasis will be on exposing the students to the various ideal theories and strategies of development and relate them to issues of poverty, inequality and other obstacles to development.

COURSE LEARNING OUTCOME:

CLO1: Understand the concepts of economic growth, development and underdevelopment and the factors responsible for the process.

CLO2: Understand and critically evaluate the growth and development theories and also various development strategies and their implications in different economies of the world.

CLO3: Develop awareness on the real meaning of development and underdevelopment and comprehend how poverty, inequality and other obstacles are linked to the process of development.

COURSE OUTLINE:

Unit I: Economic Development- Concepts, Measurement (Lectures: 15)

Introduction to growth and development, Concepts and definition of development; measurement of development- traditional measures: GDP and per capita income; HDI as a measure of development; Alternative measures of development; determinants of development; Underdevelopment: Meaning and Causes; Underdevelopment and its relationship with creation and distribution of wealth; Structural Changes and Economic Development, Obstacles to Development

Unit II: Economic Growth: (Lectures: 10)

Meaning and sources of economic growth: population growth, capital accumulation and technical progress; the notion of capital-output ratio; theories of economic growth- Classical Approach- Adam Smith, Ricardo, Harrod- Domar Growth Model

Unit III: Poverty, Inequality and Development: (Lectures: 08)

Poverty- its concepts and measurement, Poverty Trap - Definition, Causes and Economic Implications Inequality - Conceptual Issues, Its Measurement; Connections between Inequality and Development

Unit IV: Theories of Economic Development: (Lectures: 12)

Development theories: Theories of persistence of underdevelopment: Vicious circle of poverty, Cumulative causation (Myrdal), Strategies for development; Balanced and Unbalanced Growth Strategy, Development with unlimited supply of labour; Rostow's Stages of Growth ;Big Push Theory

RECOMMENDED BOOKS:

1. .Debraj Ray, Development Economics, Oxford University Press, 1999
2. R.K. Lekhi, Introduction to Development Economics, Kalyani Publishers, 2014
3. M.L. Taneja and R.M. Myer, Introduction to Development Economics,

   Vishal Publishing Co., 2014
4. A.P. Thirwall, Growth and Development: With Special Reference to Developing Economies, Palgrave, 8th ed., 2007
5. Michael P.Todaro, Stephen C. Smith: Economic Development, 13th ed. 2020

Course Name: Environmental Economics

Course Code: EC-MN-7314

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

The course is designed to provide the students basic ideas environmental economics. The course introduces students to economic principles and their application to environmental issues, focusing on management strategies, policy instruments, and international perspectives. It explores sustainable development and the related economic implications of environmental policies. So, students shall be actively engaged in the present world scenario in the context of environment and its implications for economic development.

COURSE LEARNING OUTCOME:

CLO1: Develop a comprehensive knowledge and understanding of the issues related to economy and environment.

CLO2: Acquaint students with the issues related to market failure of environmental goods and the instruments which can prevent the damages of market failure of environmental goods.

CLO3: Develop theoretical knowledge of resource economics so as to enable learners to understand how an economy should use natural resources in an optimum way, such that an economy can take up the path of sustainable development.

CLO4: Help students to understand the current dynamics of global environmental issues and concerns.

Unit I: Introduction to environmental economics (Lectures: 08)

Definition and scope of environmental economics; Environment, Ecology, Economy and the ecosystem; economy environment interaction, population and environment; environmental economics and ecological economics, Environmental economics and resource economics (idea only)

Unit II:Market Failure (Lectures: 09)

Market Failure: Meaning, Causes of market failure; Environment as a public good;Externalities: meaning and types of externality, market failure in the presence of externalities; Coase theorem; Solutions to market failure- Government Intervention through taxes and subsidies; Common Property Resources: Open Access, The Tragedy of Commons

Unit III: Pollution control and policy instruments (Lectures: 10)

Pollution: types, sources; Economics of pollution control: abatement and damage costs; Environmental Regulation: Command and control (CAC), liability laws, standards; Market based instruments: Taxes, subsidies, tradable permits; policy applications: both Indian and global context.

Unit IV: Sustainable development and natural resource economics (Lectures: 08)

Theories and principles: Sustainability, safe minimum standard; Indicators and rules for measuring sustainability; Resource economics: Efficient use, renewable vs. non-renewable resources, Green accounting and ecological economics.

Unit V: Global Environmental Issues and Governance (Lectures: 10)

Climate change, global warming, ozone depletion, biodiversity loss; Transboundary pollution and international agreements; Environment-development trade-offs and the Kuznets curve; International environmental governance: Policy, protocols, organizations.

Recommended Books:

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University

   Press, 2011
2. Bhattacharyya R, Environmental Economics, Oxford University Press, 2005
3. Nick Hanley, Jason F. Shogren and Ben White, Introduction to

   Environmental Economics, Oxford University Press, 2005
4. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings,

   W.W. Norton, 5th edition, 2005.
5. Roger Perman, Yue Ma, James Mc Gilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd edition, 2003.
6. Maureen L. Cropper and Wallace E. Oates, 1992, ―Environmental Economics: A Survey, ‖ Journal of Economic Literature, Volume 30:675-740.
7. Subhashini Muthukrishnan, Economics of Environment, PHI Learning Private Limited, 2nd edition, 2015.

Course Name: International Trade

Course Code: EC-MN-8314

Total Credits: 4 (Theory:3+ Practical/Tutorial: 1)

THEORY

Total Lectures: 45

Course Objective:

This course introduces students to advanced aspects of international trade, focusing on modern trade theories, trade policy instruments, gains from trade, and international economic integration. It builds on the foundational knowledge of classical trade theories to help students understand contemporary trade issues.

COURSE LEARNING OUTCOME:

CLO 1: Comprehend modern international trade theories and their applications.

CLO 2: Understand the determinants of trade patterns and gains from trade.

CLO 3: Analyze the effects of trade policies and economic integration.

CLO 4: Develop an awareness of contemporary issues in international trade.

Unit I: Modern Theories of International Trade (Lectures: 12)
The Classical Theory of Comparative Advantage, Heckscher-Ohlin Model, Specific Factors Model, Leontief Paradox, Factor Intensity Reversal, Economies of Scale and Imperfect Competition, Product Cycle Theory, Locational Theory of Trade, Intra-Industry Trade, Multinational Enterprises.

Unit II: Terms of Trade and Gains from Trade (Lectures: 8)
Concepts and Measurement of Terms of Trade, Factors Affecting Terms of Trade, Offer Curve Analysis, Gains from Trade, Trade as an Engine of Growth.

Unit III: Trade Policy Instruments (Lectures: 10)
Tariffs, Quotas, Export Subsidies, Anti-Dumping Measures, Countervailing Duties, State Trading Monopolies, Partial and General Equilibrium Effects of Trade Policy, Free Trade versus Protection.

Unit IV: International Economic Integration (Lectures: 8)
Forms of Economic Integration, Theory of Customs Union, Trade Creation and Diversion, Examples of Regional Integration: European Union (EU), Association of Southeast Asian Nations (ASEAN), South Asian Association for Regional Cooperation (SAARC).

Unit V: Contemporary Issues in International Trade (Lectures: 7)
Global Value Chains, Foreign Direct Investment (FDI), Intra-Industry Trade, Emerging Trade Challenges under World Trade Organization (WTO), Digital Trade and E-Commerce Trends.

Recommended Books:

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Pearson, 10th edition, 2019.

2. Dominick Salvatore, International Economics: Trade and Finance, John Wiley, 10th edition, 2011.
3. Bo Sodersten and Geoffrey Reed, International Economics, Macmillan, 3rd edition, 1994.
4. H.G. Mannur, International Economics: Theory and Practice, Vikas Publishing House.
5. K.C. Rana & K.N. Verma, International Economics, Vishal Publishing Co.

SKILL ENHANCEMENT COURSE (SEC)

Programme Specific Outcome of Bachelor of Arts – ECONOMICS (Skill Enhancement Course)

After completion of B.Sc. with SEC in Geology, students will be able to–

PSO No.	Outcome
PSO–1	Acquaintance with essential quantitative tools and their applications and usage in Economics
PSO–2	Develop critical thinking, analytical ability, quantitative skills, collaboration and other cognitive skills
PSO–3	Conceive, understand and evaluate economic policies and practices
PSO–4	Apply quantitative or logical reasoning, aptitude and research for problem solving.
PSO–5	Develop and cultivate interest in pursuing higher studies in economics, including research
PSO-6	Acquire the capability of taking up careers in various sectors like banking, industry etc.
PSO-7	21st Century Skills

Basic Syllabus Structure of SEC

Semester	Course Name	Course code
1	Computational Economics	EC – SE – 1113
2	Data Analysis	EC – SE – 2113
3	Research Methodology	EC – SE – 3213

Course Learning Outcome – Skill Enhancement Course (SEC)

Semester	Course Name & Code	Course Learning Outcome (CLO)	
1	Computational Economics EC-SE-1113	CLO-01	Understand and comprehend basic ideas of fundamentals of mathematics and statistics
		CLO-02	Acquire skills to interpret Economic theories in mathematical and statistical terms
		CLO - 03	Enhance knowledge of mathematical and statistical tools to be used in Economics.
2	Data Analysis EC-SE-2113	CLO-01	Understand and comprehend basic ideas of fundamental statistics like measures of central tendency, measures of dispersion, sampling
		CLO-02	Acquire the basic knowledge of complete enumeration and sample.
		CLO - 03	Understand the basics of Sampling Methods.
		CLO - 04	Analyze data in MS-EXCEL
3	Research Methodology EC-SE-3213	CLO-01	Understand the fundamentals of research - research design and research process.
		CLO-02	Able to apply the knowledge on research for formulating research problem.
		CLO - 03	Understand the research methods and apply them in an appropriate manner
		CLO - 04	Develop report writing and presentation skill

Mapping of Course Learning Outcome and Programme Outcome

<u>Attributes:</u> Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	PROGRAMME OUTCOME										
		APO-1	APO-2	APO-3	APO-4	APO-5	APO-6	APO-7	APO-8	APO-9	APO-10	APO-11
EC-SE-1113	CLO1	3	2		2			3	2	3	3	2
	CLO 2	3	2		2			3	3	3	3	3
	CLO 3	3	3		2			3	3	3	3	3
EC-SE-2113	CLO1	3	2		2			3	2	3	3	
	CLO 2	3	2	2	2			3	2	3	3	2
	CLO 3	3	3	2	2			3	2	3	3	2
	CLO 4	3						3	3	3	3	3
EC-SE-3213	CLO1	3				3		3	3	3	3	2
	CLO 2	3				3		3	3	3		
	CLO 3	3				3		2	3	3		3
	CLO 4		3	3				3	3	3		3

Mapping of Course Learning Outcome and Programme Specific Outcome

<u>Attributes:</u> Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	PROGRAMME SPECIFIC OUTCOME						
		PSO-1	PSO-2	PSO-3	PSO-4	PSO-5	PSO-6	PSO-7
EC-SE-1113	CLO1	3	3		3	3	2	2
	CLO 2	3	3	2	3	3	2	4
	CLO 3	3	3	3	3	3	2	3
EC-SE-2113	CLO1	3	3		3	3	2	2
	CLO 2	3	3	2	3	3	2	2
	CLO 3	3	3	2	3	3	2	2
	CLO 4	2	3	2	3	3	3	4
EC-SE-3213	CLO1	3	3	3	3	3		2
	CLO 2	3	3	3	3	3		4
	CLO 3	3	3	3	3	3		3
	CLO 4	2	2	3		3	3	2

COURSE NAME: Computational Economics

Course CODE: EC-SE-1113

Total Credits: 3 (Theory: 2 + Practical/Tutorial: 1)

THEORY: 2 CREDITS

Total Lectures: 30

COURSE OBJECTIVE:

The main objective of the paper is to familiarize students with introductory knowledge of basic mathematics and statistics to help them to understand practical applicability of Economic Theories.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of fundamentals of mathematics and statistics

CLO2: Acquire skills to interpret Economic theories in mathematical and statistical terms

CLO3: Enhance knowledge of mathematical and statistical tools to be used in Economics

COURSE OUTLINE:

Unit I: Sets :(Lectures: 04)

Concept-types: operation of sets, properties of sets; Venn diagram.

Unit II: Relations- Functions -Equations: (Lectures: 08)

Relations: Different types, Ordered pairs; Functions: types; graphical representation; domain, co-domain and range; Linear and quadratic equations; simultaneous equations, ratio, proportion and variation; Limit and Continuity (Concepts only)

Unit III: Statistics in Economics: (Lectures: 04)

Meaning and definition of Statistics, scope and subject matter of Statistics; Functions of Statistics, use of Statistics in Economics, Limitations of statistics

Unit IV: Collection of Data: (Lectures: 04)

Sources of data, types of data-primary and secondary data; methods of collection of data; Limitation of data collection

Unit V: **Organization and presentation of Data: (Lectures: 10)**

Methods of classification, statistical series. Presentation of Data; textual, tabular, diagrammatic and graphical presentation

PRACTICAL: 1 CREDIT (30 HOURS)

PRACTICAL

- Identification of sources and types of data – primary and secondary;
- Preparation of a simple questionnaire and collection of primary data through a small field survey;
- Classification and tabulation of collected or secondary data;
- Preparation of statistical series – individual, discrete, and continuous;
- Presentation of data through tables, diagrams, and graphs (bar diagram, pie chart, histogram, Ogive, etc.) using Excel or manual methods;
- Interpretation of presented data and preparation of a brief report highlighting key findings and limitations.

RECOMMENDED BOOKS:

1. Mehta and Madnani, Mathematics for Economics, S. Chand and Sons, New Delhi, 2013
2. Srinath Baruah, Basic Mathematics and its Application in Economics, Trinity, New Delhi, 2017
3. S. C. Gupta, Fundamentals of Statistics, Himalaya Publishing House, Mumbai, 6th edition, 2004

COURSE NAME: Data Analysis

COURSE CODE: EC-SE-2113

Total Credits: 3 (Theory: 2 + Practical/Tutorial: 1)

THEORY: 2 CREDITS

Total Lectures: 30

COURSE OBJECTIVE:

The objective of the course is to help students understand the meaning of data and become familiar with the various data collection methods. The students will also learn the statistical tools for estimating different parameters and analyzing various Economic phenomenon.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend basic ideas of fundamental statistics like measures of central tendency, measures of dispersion, sampling

CLO2: Acquire the basic knowledge of complete enumeration and sample.

CLO3: Understand the basics of Sampling Methods

CLO4: Analyze data in MS-EXCEL

COURSE OUTLINE:

UNIT I: Sampling Theory and design of sample survey :(Lectures: 06)

Population and sample; Distribution of Sampling, parameter and statistic; census vs. sampling methods; principal steps in a sample survey; errors in statistics; types of sampling.

UNIT II: Descriptive Statistics :(Lectures: 14)

Measures of central tendency, mean- arithmetic, geometric and harmonic, median, mode; ideal measure; measures of dispersion; range quartile deviation, mean deviation, standard deviation- properties, variance and related concepts.

UNIT III: MS-EXCEL :(Lectures: 10)

Data analysis in MS-EXCEL: Preparation of Chart, Bar, Graph using Excel, Basic Arithmetic Operations in MS-Excel, Correlation and Simple Linear Regression in Excel.

PRACTICAL: 1 CREDIT (30 HOURS)

- Preparation of a sampling frame and selection of sample using simple random and stratified sampling;
- Preparation of a short note/report comparing census and sample methods;
- Calculation of measures of central tendency: mean (A.M., G.M., H.M.), Median, and Mode for simple datasets;
- Computation of measures of dispersion: range, quartile deviation, mean deviation, standard deviation, and variance;
- Hands-on exercises on grouped and ungrouped data;
- Data entry and basic arithmetic operations in Excel (sum, average, percentage, etc.);
- Construction of tables, charts, and graphs (bar, pie, line);
- Calculation of mean, median, mode, and standard deviation using Excel functions;
- Application of correlation and simple linear regression using Excel;
- Interpretation of results and preparation of a short Excel-based analytical report.

RECOMMENDED BOOKS:

1. S. C. Gupta, Fundamentals of Statistics, S. Chand and Sons, Himalaya Publishing House, Mumbai.
2. M.R. Spiegel, Theory and Problems of Probability and Statistics, Schaum Series.
3. A. K. Chattopadhyay and T. Chattopadhyay, Computer Applications of Mathematics and Statistics, Asian Books Private Limited.
4. Nagar and Das, Basic Statistics, Oxford University Press.

COURSE NAME: Research Methodology

COURSE CODE: EC-SE-3213

Total Credits: 3 (Theory: 2 + Practical/Tutorial: 1)

THEORY: 2 CREDITS

Total Lectures: 30

COURSE OBJECTIVE:

The objective of the course is to acquaint the learners with the basics of research enhancing their skills in formulating research problems and executing the research process.

COURSE LEARNING OUTCOME:

CLO 1: Understand the fundamentals of research -research design and research process.

CLO 2: Able to apply the knowledge on research for formulating research problem.

CLO 3: Understand the research methods and apply them in an appropriate manner

CLO 4: Develop report writing and presentation skill

COURSE OUTLINE:

Unit I: Understanding Research: (Lectures: 05)

Research: Meaning, Concept and Need; Nature and Scope of Social Research-Need for Multidisciplinary Inter-Disciplinary Approach in Research; Types of research- Descriptive Analytical, Applied, Fundamental, Action, Conceptual, Empirical

Unit II: Research Process: (Lectures: 08)

Research Design: Meaning and features; Types of Research Design

Research Plan: Formulation of a research proposal, Formulation of objectives and hypothesis; types of hypothesis; Sample design-Census and Sample Surveys-Sampling techniques-Sample size; Statistical Inference: Concept; Hypothesis Testing, Types of Errors

Unit III: Research Methods: (Lectures: 12)

Research Methods vs. Research methodology; Quantitative Methods: Survey, Experiment; Questionnaire Vs. Schedule; Qualitative Methods: Interview, Observation, Case Study, Focus Group Discussion; Mixed Method of ResearchTools for Research: Measurement of Variables, Measuring Qualitative Variables; Statistical Techniques: Linear Regression, Features and Uses of Statistical Package: SPSS

Unit IV: Report Writing: (Lectures: 05)

Research Reports: Plan Outline, Format and Components; Features of a good Research Report; Technical Report, Popular Report, Interim Report, Executive / Summary Report, Research Abstract.

Practical (1 Credit): 30 Hours

- Identifying research areas related to social science research: Community-based studies, Policy analysis, Program evaluation, Market research.
- Formulate research problems pertaining to various types of research: Descriptive, Analytical, Conceptual, Empirical, cross-sectional, longitudinal and case study.
- Formulation of a research proposal (related to any social /interdisciplinary/multidisciplinary subject matter).
- Practical in SPSS: Data Entry in SPSS; Creating a data file: Defining variables, Naming a variable; Variable labels; Levels of Measurement, Procedures for creating a data file, Use of SPSS for analysing data (Descriptive Statistics and Linear Regression: introduction only).
- Research Report Presentation through MS-Power Point.

Recommended Books:

1. Srivastava, S. C.: Foundation of Social Research and Economics Techniques, Himalaya Publishing

House, 1990.

2. Krishnaswami O.R.: Methodology of Research in Social Sciences, Himalaya Publishing House,

2010, Revised Edition.

3. Bhandarkar, P.L. and T.S. Wilkinson, Methodology and Techniques of Social Research. Himalaya

Publishing House, 2016, 24th Edition.

4. Kothari, C.R., Research Methodology: Methods and Techniques, New Age International, 2004,

Revised Edition.

5. Druckman, Daniel, Doing Research, Sage, 2005.

6. S P Gupta, Statistical Methods, S Chand, 2021, 46th Edition.

INTER-DISCIPLINARY COURSE (IDC)

Programme Specific Outcome of Bachelor of Arts – ECONOMICS (IDC)

PSO No.	Outcome
PSO–1	Understand the basic concepts, ideas and theories of Gender Studies
PSO–2	Develop critical thinking, analytical ability and other cognitive skills
PSO–3	Conceive, comprehend and evaluate economic policies and practices related to Gender Studies
PSO–4	Develop interest in pursuing higher studies in Gender Economics, including research.
PSO-5	Enhance the awareness about the prevalent social issues
PSO-6	21st Century Skills

Basic Syllabus Structure of IDC

Semester	Course Name	Course Code
1	Introduction to Gender Studies	EC-ID-1113
2	Contemporary Issues in Gender Studies	EC-ID-2113
3	Development- Gender Perspectives	EC-ID-3213

Course Learning Outcome (CLO)

Semester	Course Name & Code	Course Learning Outcome (CLO)	
1	Introduction to Gender Studies EC-ID-1113	CLO-01	Understand and comprehend the concepts of Gender and Sex.
		CLO-02	Assess and analyze how women's opportunities and achievements are constrained by systems of oppression and privilege
		CLO - 03	Recognize, critically analyze, and choose paths of action for social change
2	Contemporary Issues in Gender Studies EC-ID-2113	CLO-01	Create awareness about one's strengths and weaknesses
		CLO-02	Develop sensitivity for gender equality.
		CLO -03	Promote attitudinal change for attaining a gender balanced ambience and women empowerment.
3	Development- Gender Perspectives EC-ID-3213	CLO-01	Acquaint students with Development of women from the Gender perspective
		CLO-02	Understand the need for collecting, incorporating and analyzing data on development of women from gender perspective
		CLO - 03	Comprehend the need for gender planning and gender budgeting.

Mapping of Course Learning Outcome (CLO) and Programme Outcome (PO)

Attributes: Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	Programme Outcome (PO)										
		APO-1	APO-2	APO-3	APO-4	APO-5	APO-6	APO-7	APO-8	APO-9	APO-10	APO-11
EC-ID-1113	CLO - 1	3	2	3	3	3		2	2	3	2	
	CLO - 2	3	2	3	3	2		2	2	3	2	
	CLO - 3	3	3	3	3	3		2	2	3	2	2
EC-ID-2113	CLO - 1	3	3	3	3	3		2	2	3	2	
	CLO - 2	3	3	2	2	3		2	2	3	2	
	CLO - 3	3	3	3	3	3		2	2	3	2	2
EC-ID-3213	CLO - 1	3	3	3	3	3	3	3	3	2	2	2
	CLO - 2	3	3	3	3	3	3	3	3	3	3	2
	CLO - 3	3	3	3	3	3	3	3	3	3	3	2

Mapping of Course Learning Outcome (CLO) and Programme Specific Outcome (PSO)

Attributes: Co-relation Levels

"1" : Minimum Co-relation
"2" : Moderate Co-relation
"3" : Maximum Co-relation
"-" : No Co-relation

Course Code	CLO	Programme Specific Outcome (PSO)					
		PSO–1	PSO-2	PSO-3	PSO-4	PSO - 5	PSO - 6
EC-ID-1113	CLO-1	2	2	3	3	3	2
	CLO - 2	2	3	3	3	3	3
	CLO - 3	3	3	3	3	3	3
EC-ID-2113	CLO-1	3	3	2	2	3	2
	CLO - 2	3	3	3	3	3	3
	CLO - 3	3	3	3	3	3	3
EC-ID-3213	CLO-1	3	3	2	2	3	2
	CLO - 2	3	3	3	3	3	2
	CLO - 3	3	3	3	3	3	3

COURSE NAME: Introduction to Gender Studies

COURSE CODE: EC – ID – 1113

TOTAL CREDITS: 3 (Theory: 3)

THEORY

Total Lectures: 45

COURSE OBJECTIVE:

The main objective of this paper is to familiarize the students with the concepts of Gender, Sex- their differences and how historical, cultural, political and social events shape the role of Gender in different societies.

COURSE LEARNING OUTCOME:

CLO1: Understand and comprehend the concepts of Gender and Sex

CLO2: Asses and analyze how women's opportunities and achievements are constrained by systems of oppression and privilege

CLO3: Recognize, critically analyze, and choose paths of action for social change

COURSE OUTLINE:

Unit 1: Conceptualizing Gender: (Lectures: 10)

Constructing Sex and Gender – Patriarchy, Sexual Division of Labour, Construction of Sexuality - Masculinity and Femininity.

Unit II: Areas of Gender Discrimination :(Lectures: 13)

Family, Sex Ratio, Literacy, Health, Governance, Religion Work Vs Employment, Market Media, Politics, Law, Domestic Violence, Sexual Harassment; State Policies and Planning.

Unit III: Gender and Family in India :(Lectures: 10)

Family as a gendered institution - Family as a site of violence - Women as honour and shame of caste, religion, clan.

Unit IV. Women's Studies vs. Gender Studies :(Lectures: 12)

UGC's Guidelines – Gender Studies -Beijing Conference and CEDAW – Exclusiveness and Inclusiveness.

RECOMMENDED BOOKS:

1. Bhasin Kamala (2000): Understanding gender, kali for women, N. Delhi.

2. Davis Kathy, Evans Mary, Lorber, J (edt) (2006): Handbook of Gender and Women's studies, Sage, UK.

3. Geetha V.: Gender, Stree, Calcutta, 2002.

COURSE NAME: Contemporary Issues in Gender Studies

COURSE CODE: EC-ID-2113

Total Credits: 3 (THEORY)

THEORY

Total Lectures: 45

COURSE OBJECTIVE:

The objective of the course is to encourage critical thinking about women's subjugation, oppression in every sphere of life and help the learners to relate to contemporary women's issues.

COURSE LEARNING OUTCOME:

CLO1: Create awareness about one's strengths and weaknesses

CLO2: Develop sensitivity for gender equality

CLO3: Promote attitudinal change for attaining a gender balanced ambience and women empowerment.

COURSE OUTLINE:

Unit I: Women's movement in India :(Lectures: 15)

Women and National Movements, Campaigns by women's movement around 1960s and 70s , Anti – Price, Anti- Dowry - Caste, gender and class intersections, Patriarchal state and rights of women.

Unit II: Women Development and Gender Empowerment :(Lectures: 10)

Initiatives – International Women's Decade, International Women's Year, National Policy for Empowerment of Women, Women Empowerment Year 2001, Mainstreaming Gender in Global Policies .

Unit III: Structures of gender Inequality :(Lectures: 10)

Patterns of Gender inequality in terms of caste, class and religion patterns of violence against women (with special reference to Assam) Female feticide, Female Infanticide, child marriage. Dowry, Widowhood, Female commercial sex workers, Domestic violence, problems of Elderly and single women

Unit IV. Women's Safeguarding Mechanism in India :(Lectures: 10)

National /State Commission for Women(NCW) , All Women Police Station, Family Court, Domestic Violence Act, Prevention of Sexual Harassment at Work Place Supreme Court Guidelines, Maternity Benefit Act, PNDT Act, Hindu Succession

Act 2005, Eve Teasing Prevention Act , Self Help Groups – 73rd and 74th Amendment.

RECOMMENDED BOOKS:

1. Bhasin Kamala (2000): Understanding gender, kali for women, N. Delhi.
2. Davis Kathy, Evans Mary, Lorber, J (edt) (2006): Handbook of Gender and Women's studies, Sage, UK.
3. Geetha V.: Gender, Stree, Calcutta, 2002. Chodhuri Maitreyee (2004): Feminism in India, Women Unlimited, New Delhi.
4. Chakravarty Uma (2003), Gendering caste through a feminist Lense, Stree, Calcutta.
5. Ahuja, Ram (1993/2002) Indian Social System, Rawat, Jaipur

COURSE NAME: Development- Gender Perspectives

COURSE CODE: EC-ID-3213

Total Credits: 3

THEORY

Total Lectures: 45

COURSE OBJECTIVE:

This course will enlighten students with the knowledge of Gender mainstreaming in development process. They will also understand and internalize the importance of Gender roles in development and importance of Gender Equity. This course will also help students to understand the need for inclusive growth and policy framing to bring overall development of the country.

COURSE LEARNING OUTCOME:

CLO1: Acquaint students with Development of women from the Gender perspective;

CLO2: Understand the need for collecting, incorporating and analyzing data on development of women from gender perspective;

CLO3: Comprehend the need for gender planning and gender budgeting.

COURSE OUTLINE:

Unit I: Paradigm Shift in Development: (Lectures: 18)

Definition and Concepts of Development: Approaches for WID, WAD, and GAD, Human Development Index (HDI), Gender Development Index (GDI), Gender Empowerment Measure (GEM), Gender Inequality Index (GII) and Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs).

Unit II: Gender Analysis: Process and Tools :(Lectures: 12)

Gender Statistics, Need and Importance of Gender, Segregated Data, Assessing Gender Division of Labour and Decisions Making Process, Access to and Control over Resources, Assets and Benefits.

Unit III: Engendering Policy and Planning: (Lectures: 15)

Definition, Nature and Strategies of Gender Mainstreaming; Gender Auditing and Gender Budgeting; Gender Mainstreaming in Implementation of Women Development Project, Gender Equality Action Planning and Project Design; Implementation, Monitoring and Evaluation.

RECOMMENDED BOOKS:

1. Paul Chowdary, D. “Women Welfare and Development (A Source Book)”, Inter- India Publication, New Delhi –1991.
2. Lakshmi Devi, “Women Empowerment and Societal improvement”, Anmol Publications, Pvt. Ltd., New Delhi –1998.
3. Lakshmi Devi, “Women and Development”, Anmol Publications, Pvt. Ltd. New Delhi–1998.
4. Mahadevan, “Women and Population Dynamics (Perspectives from Asian Countries)”, Sage Publications, New Delhi–1989.

4. Maithreyi Krshnaraj, “Women and Development (The Indian Experience)”