



SNDT Women's University, Mumbai

Master of Arts (Economics)

M.A.(Economics)

as per NEP-2020

Syllabus

(w.e.f. 2024-25)

Semester- III & IV

**S.N.D.T.WOMEN'S UNIVERSITY,
MUMBAI.400020
M.A. Economics Syllabus Introduced Jun 2023-24**

Program Degree		M.A.
Parenthesis if any (Specialization)		Economics
Preamble:		<p>The study of economics has become more significant in the era of globalization as a result of emerging nations' persistent interest in reorganizing their economies for better diversity, efficiency, and priorities.</p> <p>In this programme Advanced microeconomics, public economics, international economics, research, growth and development etc. are upgraded to meet the objectives of National Education Policy 2020. This curriculum reflects current economic realities and enhances knowledge and employability skills of students.</p> <p>The curriculum aims to improve students' analytical and problem-solving skills.</p>
Programme Specific Outcomes (POs)		After completing the programme, Learner will be able to:
	1.	Understand the concepts and make application of the advanced theories in Economics.
	2.	Elaborate theoretical and analytical aspects of the subject.
	3.	Apply the knowledge and techniques in empirical analysis.
	4.	Make an assessment of real-world economic situation
Eligibility Criteria for Programme		Bachelor's degree in Economics or any other subjects from any recognized University
Intake		25 per medium - University Department 40-Affiliated College

RM: Research Methodology
OJT: On-Job Training
RP: Research Project

Master of Arts (Economics)
M.A. (Economics)

Structure with Course Titles

Structure with Course Titles

Post Graduate Programme of TWO Years:

SN	Courses	Type of Course	Credits	Marks	Int	Ext
	Semester I					
110611	Micro economic Analysis	Major (Core)	4	100	50	50
110612	Theoretical Aspect of Economic Growth & Development	Major (Core)	4	100	50	50
110613	Public Economics	Major (Core)	4	100	50	50
110614	Theories of International Trade	Major (Core)	2	50	50	0
120611/ 120612	Industrial Economics (OR) Statistics for Economics	Major (Elective)	4	100	50	50
130611	Research Methodology	Minor Stream (RM)	4	100	50	50
			22	550	300	250
	Semester II					
210611	Advanced Micro Economics	Major (Core)	4	100	50	50
210612	Sectoral Aspects of Economic Growth and Development	Major (Core)	4	100	50	50
210613	Agricultural Economics	Major (Core)	4	100	50	50
210614	Aspects of International Trade	Major (Core)	2	50	0	50
220611/ 220612/ 220613	Modern Banking (OR) Mathematical Economics (OR) Labour Economics	Major (Elective)	4	100	50	50
240641	OJT	OJT	4	100	50	50
			22	550	250	300

Exit option: (44 credit) after Three-Year UG Degree

Year II

SN	Courses	Type of Course	Credits	Marks	Int.	Ext
	Semester III					
310611	Macro economic Analysis	Major (Core)	4	100	50	50
310612	Indian Economy since 1991	Major (Core)	4	100	50	50
310613	History of Economic Thought	Major (Core)	4	100	50	50
310614	Economy of Maharashtra	Major (Core)	2	50	0	50
320611/ 320612/ 320613	Rural Development OR Basic Econometrics OR Demography	Major (Elective)	4	100	50	50
350631	Research Proposal and Design	RP	4	100	50	50
			22	550	250	300
	Semester IV					
410611	Advanced Macro economics	Major (Core)	4	100	50	50
410612	Sectoral Aspects of Indian Economy	Major (Core)	4	100	50	50
410613	Urban Economics	Major (Core)	4	100	50	50
420611/ 420612/ 420613	Gender and Economic Development OR Applied Econometrics OR Environmental Economics	Major (Elective)	4	100	50	50
450631	Research Analysis and Report	RP	6	150	100	50
			22	550	300	250

Course Syllabus

Semester- III

Major (Core)

Code No.: 310611

Course Title	Macroeconomics Analysis
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Define and explain the process of measuring national income identify and its components.
	<ul style="list-style-type: none"> Construct price index numbers by using different formulas; assess implications of per capita income and disposable income.
	<ul style="list-style-type: none"> Analyze Keynesian and post-Keynesian consumption-income hypotheses.
	<ul style="list-style-type: none"> Describe the concepts of investment, investment multiplier, accelerator and various determinants of MEC.
	<ul style="list-style-type: none"> Demonstrate components of money supply with RBI's approach and discuss the factors affecting high-powered money and money multiplier.
Module 1(Credit 1)	Macroeconomic Measurement
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Calculate different concepts related to national income concepts and its determinants.
	<ul style="list-style-type: none"> Compare the equations and income identities used under different methods of measurement of national income.
	<ul style="list-style-type: none"> Analyze the implications of Okun's law for reducing unemployment rate.
Content Outline	<p>1.1 An overview of National Accounting, National income identities, National Income at market price and factor cost, GDP, GNP, NNP and GVA,</p> <p>1.2 Per capita Income, Disposable Income & Nominal and real GDP. Construction of Price Index Number and GDP deflator.</p> <p>1.3 Okun's Law and its implications</p> <p>1.4 Methods of measurement of National Income;</p> <p>1.5 Product Approach, Expenditure Approach, Income Approach, Green accounting.</p>
Module 2(Credit 1)	Income Determination
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Compute national income in Keynesian model of income determination with exports, imports and changes on tax rates.
	<ul style="list-style-type: none"> Describe equilibrium through IS-LM model in determining interest rates and level of national income.
	<ul style="list-style-type: none"> Assess the effectiveness of monetary and fiscal policies using IS-LM model.

Content Outline	<p>2.1 Keynesian Model of income determination in three and four sectors,</p> <p>2.2 Determination of National and rate of interest in the framework of IS-LM model: Derivation of IS and LM curves, Factors determining the slope of IS and LM curves,</p> <p>2.3 The role of fiscal and monetary policies affecting the changes in IS –LM curves in determining national income and rate of interest,</p> <p>2.4 Aggregate supply and Aggregate demand model.</p>
Module 3(Credit 1)	Consumption Function and Investment Function
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> • Evaluate the relationship between income and consumption by analyzing Keynesian and Post-Keynesian theories of consumption. • Assess investment function in classical, neo-classical and Keynesian approaches. • Analyze Investment Multiplier and determinants of MEC.
Content Outline	<p>3.1 Consumption Function: Keynes Psychological Law of consumption and Kuznets’s consumption puzzle.</p> <p>3.2 Relative Income Hypothesis, Permanent Income Hypothesis and Life Cycle Hypothesis.</p> <p>3.3 Investment Function: Neo-Classical Theory of Investment, Accelerator Theory of Investment.</p> <p>3.4 Keynes theory of investment multiplier and Determinants of MEC.</p>
Module 4(Credit 1)	Demand and supply of Money
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> • Differentiate Keynesian and post Keynesian approaches to various motives of demand for money. • Evaluate effect of high powered money on money supply and interest rates through money multiplier. • Analyze RBI’s approach to money supply.
Content Outline	<p>4.1 Different approaches of demand for money: Keynes Liquidity Preference Approach, Post Keynesian theories of demand for money:</p> <p>4.2 Tobin’s Portfolio approach, Baumol’s inventory approach, Friedman’s theory of demand for money.</p> <p>4.3 Measures of money supply, RBI approach to money supply,</p> <p>4.4 High Powered money and its determinants, Money multiplier.</p>

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)
3. Presentation/ Seminar : (10 Marks)
4. MCQs Test : (10 Marks)

References:

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- Friedman, M. (1957), The Theory of Consumption Function, Princeton University Press, Princeton.
- Jhingan M. L., 14th Edition, 2014, Advanced Economics theory, Vrinda Publication Ltd Delhi..
- Frisch, H. (1983), Theories of Inflation, Cambridge University Press, Cambridge.
- Jha, R. (1991), Contemporary Macroeconomic Theory and policy, Wiley Eastern Ltd., New Delhi.
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- Keynes, J.M. (1936), The General Theory of Employment, Interest and Money, Macmillan London.
- Leslie Lips Chitz and Susan Schadler, March 2019 - Macroeconomics for Professionals - A Guide for Analysts and Those Who Need to Understand Them, Published by Cambridge University Press, Mumbai, India
- Langdana Farrokh (2009), Macroeconomic Policy: Demystifying Monetary and Fiscal Policy, 2nd Edition, Springer.
- Mankiw Gregory (2002), Macroeconomics, 5th Edition, Worth Publishers.

- Romer, D., 2012, Advanced Macroeconomics, McGraw-Hill Delhi, Fourth Edition,
- Wickens, M., Macroeconomic Theory and the Dynamic General Equilibrium Approach, Princeton University Press, 2011.
- आहूजा एच.एल. (२०१२), उच्चतर आर्थिक सिद्धांत, एस. चंद अँड कंपनी लि. (हिंदी आवृत्ती)
- देशपांडे श्रीधर व देशपांडे विनायक (२०१९), समष्टि अर्थशास्त्रीय विश्लेषण , हिमालय पब्लिशिंग हाउस, दिल्ली
- जिंगन एम. एल.(१९८५), उच्च आर्थिक सिद्धांत, वाणी एजुकेशनल बुक. दिल्ली (हिंदी आवृत्ती)
- रसाळ राजेंद्र (२००७)समग्रलक्षी आर्थिक विश्लेषण, सक्सेस पब्लिकेशन्स पुणे.

Reference Books in Hindi -

- एम.एल.जिंगन,2023, समष्टि अर्थशास्त्र (मैक्रो इकोनॉमिक्स) हिंदी 8वां संस्करण विज्ञानियस प्रकाशन दिल्ली।
- एच.एल.आहूजा, 2023, उच्चतर समष्टि अर्थशास्त्र (उन्नत मैक्रोइकोनॉमिक थ्योरी), 11वां संस्करण ग्लोबल नेट पब्लिकेशन-विज्ञानियास, दिल्ली।
- डॉ.पुष्पेंद्र सिंह, 2022, समष्टि अर्थशास्त्र-मैक्रो इकोनॉमिक्स ,संस्करण 1, ठाकुर पब्लिकेशन हाउस
लखनऊ।

Semester- III**Major (Core)****Code No.:310612**

Course Title	Indian Economy Since-1991
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Describe the features and analyze sector-wise changing pattern of Indian economy. • Appraise the changing status and contribution of the human resources in development of the economy. • Elaborate pattern and trends in revenue and expenditure of Central Government. • Review and analyze the fiscal and financial reforms and their impact on the Indian economy.
Module 1(Credit 1)	Features of Indian economy
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Analyze features and sector-wise changing pattern of Indian economy. • Review of five-year plans in India and NITI Aayog. • Evaluate major challenges facing Indian economy.
Content Outline	1.1 Nature and Characteristics of Indian economy: Changing pattern of different sectors in India. 1.2 Pattern and Structure Planning; objectives and strategies; 1.3 Review of five-year plans, NITI Aayog. 1.4 Challenges facing India: Poverty, unemployment, inequality, inflation and environment, Impact of covid-19 on Indian economy.
Module 2(Credit 1)	Demography of India
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Explain the changing pattern of India's population. • Interpret India's population policy 2000. • Describe opportunities and constraints in human resource development of India.
Content Outline	2.1 Changing pattern of India's population: Birth rate and death rate, 2.2 Total population, sex-ratio, density, Age composition and demographic dividend, 2.3 Population policy-2000, 2.4 Opportunities and constraints in human resource development of India.
Module 3(Credit 1)	Centre-state financial relations and fiscal reforms
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Evaluate the pattern and trends in revenue and expenditure of Central Government. • Analyze the role of finance commissions in context to central-state relationship. • Interpret the fiscal sector reforms in India.

Content Outline	3.1 Trends in revenue and expenditure of Central Government. 3.2 Centre-State financial relations, 3.3 Finance Commission: Recommendations of 14 th and 15 th Finance Commissions, 3.4 Fiscal Sector Reforms, 3.5 Introduction to FRBM and GST.
Module 4 (Credit 1) Financial Sector of India	
Learning Outcomes	After learning the module, learners will be able to
	• Analyze the role of monetary policy in financial sector.
	• Interpret the money market and capital market of India with recent reforms.
	• Evaluate the role and functioning of SEBI in financial markets.
	• Appraise the impact of financial inclusion on women
Content Outline	4.1 Monetary policy objectives, Targets and instruments of RBI and Monetary Policy Committee (MPC). 4.2 Features of money market and capital markets in India: 4.3 Recent reforms in India since 1991, 4.4 Role and functioning of SEBI, Financial inclusion and women

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)
3. Presentation/ Seminar : (10 Marks)
4. MCQs Test / Project : (10 Marks)

References:

- Agrawal A.N. (2023), Indian Economy Problems of Development and Planning 44th Edition, New Age International Publishers. Delhi.
- Agrawal A.N., (2018), Indian Economy, 41th Edition, New Age International Publishers. Delhi
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- माहोरे रामदास, २०२१,भारतीय अर्थव्यवस्था, साई ज्योती पब्लिकेशन, नागपूर,
- झामरे जी.एन.२०१५, भारतीय अर्थव्यवस्था विकास व पर्यावरणात्मक अर्थशास्त्र', पिंपळापुरे अँड कंपनी पब्लिशर्स, नागपूर
- नीलांजन बानिक (२०१७), भारतीय अर्थव्यवस्था – स्थूल अर्थशास्त्रीय आढावा, सेज पब्लिकेशन इंडिया प्रा.लि. न्यू दिल्ली
- रसाळ राजेंद्र (२०१५) भारतीय अर्थव्यवस्था,सुधारित व विस्तारित आवृत्ती, सक्सेस पब्लिकेशन्स पुणे
- रमेश सिंह (२०१९), भारतीय अर्थव्यवस्था (मराठी आवृत्ती), मॅक ग्रा हिल एज्युकेशन , चेन्नई

Reference Books in Hindi

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- वी.के.पुरी, एस.के.मिश्रा और भगत गर्ग, **2023-2024**, भारतीय अर्थव्यवस्था, **41**वां संस्करण, हिमालय पब्लिशिंग हाउस, मुंबई।
- रमेश सिंह, **2023**, भारतीय अर्थव्यवस्था, **15** वाँ संस्करण, मैकग्रा हिल पब्लिशर्स, नई दिल्ली

Semester- III**Major (Core)****Code No. :310613**

Course Title	History of Economic Thought
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Examine the contributions of Economist in the pre-classical and classical period. • Appraise the contribution of Economists of Neo-classical and Keynesian era. • Compare the thoughts of different Indian Economist.
Module 1(Credit 1)	Pre-Classical and Classical Period
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Assess the contributions of early economic writers. • Differentiate the views of different classical economists.
Content Outline	<p>1.1 Early Economic thought: Meaning, causes for the rise of Mercantilism and its features,</p> <p>1.2 Meaning and causes for the rise of Physiocracy and its features</p> <p>1.3 Classical Thought-Adam Smith: division of labour, theory of value, capital accumulation, distribution, views on international trade.</p> <p>1.4 David Ricardo: distribution, taxation and views on international trade., Karl Marx: materialistic interpretation of history, theory of value, surplus value, profit and crisis of capitalism.</p> <p>1.5 Joseph Schumpeter: theory of economic development - innovation and entrepreneurship.</p>
Module 2(Credit 1)	Introduction to Neo-classical and Keynesian Economics
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Illustrate economic thoughts of Neo-Classical economists. • Interpret Keynesian Economic Thought.
Content Outline	<p>2.1 Marginal revolution: Jevons, Menger.</p> <p>2.2 Cambridge School: Alfred Marshall, A.C.Pigou and Robertson Lausanne School: Walras and Pareto.</p> <p>2.3 J.M. Keynesian Economics: General theory of employment, interest and money.</p>
Module 3(Credit 1)	Indian Economic Thought - I
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Summarize thoughts of early Indian economic writers. • Review the views of Indian Economist of 19th and 20th century.

Content Outline	3.1Thiruvalluvar views on Wealth, Poverty, Agriculture, Public Finance and welfare State, 3.2 Kautilya views on economic policies, welfare state, principles of taxation, 3.3Mahatma Phule’s views on self-sufficient village economy, dignity of labour and women empowerment, 3.4Dadabhai Naoroji’s views on theory of drain, M. G. Ranade’s views on protection, G. K. Gokhale’s thought on development and welfare.
Module 4(Credit 1) Indian Economic Thought - II	
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Discuss the economic thoughts Indian economists. • Interpret the economic thoughts of modern thinkers
Content Outline	4.1 M.K. Gandhi’s view on swadeshi, Sarvodaya, trusteeship 4.2 Dr. B.R. Ambedkar’s views on state socialism and public finance. 4.3Amartya Sen: capability approach, economic development vs social development, 4.4 Jagdish Bhagwati: International trade, free trade, Abhijit Benerjee : Poverty and famine.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)
3. Poster Presentation/Seminar : (10 Marks)
4. MCQs Test / Project : (10 Marks)

References:

- Abhijit V. Banerjee and Esther Duflo, (2013), Poor Economics: Rethinking Poverty and ways to end it, Penguin Books;
- Bipin Chandra (ed) (1990): Ranade’s Economic Writings, Gyan Publishing House, New Delhi
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- Sen Amartya, The Idea of Justice (2010), Penguin Books;
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- रायखेलकर व दामाजी (२०२२), आर्थिक विचारांचा इतिहास, विद्या बुक पब्लिशर्स, औरंगाबाद

Reference Books in Hindi

- डॉ. प्रतिमा गुप्ता, डॉ. सविता तोमर **2022**, आर्थिक विचार का इतिहास प्रथम संस्करण (आर्थिक विचारों का इतिहास) ठाकुर पब्लिकेशन प्रा. लिमिटेड लखनऊ।
- महेश चंद्र चतुर्वेदी एवं मिथिलेश चंद्र चतुर्वेदी, **2022** । आर्थिक चिंतन का इतिहास, प्रथम संस्करण, साहित्य भवन प्रकाशन आगरा द्वारा प्रकाशित।

Semester- III**Major (Core)****Code No. :310614**

Course Title	Economy of Maharashtra
Course Credits	2
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> • Explain the concept of regional economics and characteristics of Economy of Maharashtra.
	<ul style="list-style-type: none"> • Analyze the role, progress and problems of social and physical infrastructure in the development of the Economy of Maharashtra.
Module 1(Credit 1)	Overview of economy of Maharashtra
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Describe role and characteristics of Maharashtra.
	<ul style="list-style-type: none"> • Analyze the pattern of revenue and expenditure.
	<ul style="list-style-type: none"> • Discuss budget of Maharashtra state.
Content Outline	1.1Regional Economics: meaning, scope and characteristics. 1.2 Basic characteristics of the economy of Maharashtra, Role of economy of Maharashtra in Indian economy. 1.3 State Finances: Sources of Revenue, and Pattern of revenue and expenditure, 1.4 Budget of Maharashtra since 2001.
Module 2(Credit 1)	Infrastructural development in Maharashtra
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Elaborate infrastructural development of the economy of Maharashtra.
	<ul style="list-style-type: none"> • Analyze the status of physical and social infrastructure.
	<ul style="list-style-type: none"> • Illustrate the role of PPP in the infrastructural development.
Content Outline	2.1Role, progress and problems of infrastructural sector in Maharashtra, 2.2Physical infrastructure: transport and communication, drinking water, irrigation and energy, 2.3 Social infrastructure: Health and education, 2.4 Role of Public Private Partnerships (PPPs) in the development of infrastructure in Maharashtra.

Assignments/ Activities Towards Comprehensive Continuous Evaluation (CCE)**(No Internal Marks this Paper)****References:**

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- वी.के.पुरी, एस.के.मिश्रा और भगत गर्ग, 2023-2024, भारतीय अर्थव्यवस्था 41वां संस्करण हिमालय पब्लिशिंग हाउस, मुंबई।
- रमेश सिंह,, 2023, भारतीय अर्थव्यवस्था, 15वाँ संस्करण,, मैकग्रा हिल पब्लिशर्स, नई दिल्ली।
- डॉ.करण सिंह राजपूत, महाराष्ट्र की अर्थव्यवस्था (2020), साईं ज्योति प्रकाशन, द वे ऑफ लाइट्स, पुणे महाराष्ट्र

Semester- III

Major (Elective)

Code No. :320611

Course Title	Rural Development
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Explain the dynamics of rural India. • Examine the rural development programmes and policies in India. • Analyze the contribution of financial institutions in rural development. • Review the status of rural infrastructure in India.
Module 1(Credit 1)	Introduction to Rural Development
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Identify the basic concepts associated with Rural Economics. • Explain the determinants of rural development. • Compare the approaches for rural development.
Content Outline	1.1 Rural Economics – Concept and significance, Rural Economy of India- Components-Structure and Characteristics, 1.2 Rural development- Concept and basic elements, Determinants of rural development, 1.3 Approaches for rural development-Gandhian approach, 1.4 Technology centered approach, Marxian approach.
Module 2(Credit 1)	Rural development in India
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Elaborate the role of agriculture sector in rural development. • Evaluate the rural development programmes. • Discuss the strategies for rural development.
Content Outline	2.1 Role of agriculture and allied activities in rural development, 2.2 Present status of Poverty, unemployment and agricultural development in India, 2.3 Government programs for rural development-Poverty alleviations programmes, 2.4 Programmes for self-employment generation, MGNREGA and rural development, Government strategies for rural development.
Module 3(Credit 1)	Rural industrialization in India
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Examine the growth of rural industrialization. • Analyze the role of banking sector in rural development. • Scrutinize the role of NABARD in rural development.
Content Outline	3.1 Rural industrialization- concept, extent and progress of rural industrialization 3.2 Rural industrial financing -Institutional and Non –Institutional Sources, 3.3 Role of Commercial Banks, Co-operatives (SCBs, DCCBs and PACSs), RR 3.4 Role of NABARD in rural developments.
Module 4(Credit 1)	Infrastructure and rural development

Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Elaborate the role of infrastructure in rural development.
	<ul style="list-style-type: none"> • Analyze the status of rural infrastructure.
Content Outline	<ul style="list-style-type: none"> • Describe the contributions of various agencies in rural development.
	<p>4.1 Role of infrastructure in rural development, 4.2 Status of -irrigation, drinking water, electrification, education and public health in the rural India. 4.3 Agencies for Rural Development -Government, Semi-Government, Organizations, Non-Government Organizations and Voluntary, 4.4 Agencies for Rural Development.</p>

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)
3. Poster Presentation/Seminar : (10 Marks)
4. MCQs Test / Project : (10 Marks)

References:

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- जोगी कुमुदिनी (२०१८), ग्रामीण विकासाची वाटचाल, सेंटर फॉर एकाॅनॉमिक अँड सोशल स्टडीज, अमरावती.
- जोगी कुमुदिनी (२०१८), ग्रामीण विकासाची वाटचाल, सेंटर फॉर एकाॅनॉमिक अँड सोशल स्टडीज, अमरावती.
- सिंह कटार, शिशोदिया अनिल (२०१६), ग्रामीण विकास, तत्वे, धोरणे आणि व्यवस्थापन, सेज पब्लिकेशन.

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- डॉ. रविशंकर जैसवार, दिसंबर-2010, भारत में ग्रामीण विकास, रीगल प्रकाशन नई दिल्ली।
- गुल्लीबाबा.कॉम पैनल, 2019, भारत में ग्रामीण विकास, गुल्लीबाबा पब्लिशिंग , हाउस दिल्ली।

Course Title	Basic Econometrics
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Analyze how econometric models are specified, estimated and evaluated.
	<ul style="list-style-type: none"> Develop, estimate and evaluate the least square parameters in two variable regression model and test their statistical significance using a test criterion suitable to empirical data undertaken.
	<ul style="list-style-type: none"> Analyze LPP model in the optimization problems relating to a firm and other economic agent.
	<ul style="list-style-type: none"> Find transportation problem's minimum cost by applying different methods.
<ul style="list-style-type: none"> Solve the game theory problems by using probability and graphical methods for games with no saddle point (Mixed strategy games). 	
Module 1(Credit 1)	Two variable econometric models
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Develop the specification, estimation and evaluation of two variable econometric models from Microeconomics and Macroeconomics and evaluate the statistical significance of the estimated least square parameters.
	<ul style="list-style-type: none"> Use BLUE property in regression besides able to find out mean and variance of estimated least square parameters.
Content Outline	<p>1.1 Specification, estimation and evaluation of econometric models from topics of microeconomics and macroeconomics with the help of empirical data.</p> <p>1.2 Simple two variable linear regression model, assumptions of linear stochastic regression model,</p> <p>1.3 least square criterion of estimating parameters in two variable regression model, the mean, standard deviation and variance of the least square parameters of the model</p> <p>1.4 Random term: explained, unexplained and total variation and coefficient of determination,</p> <p>1.5 Gauss-Markov's theorem on BLUE and properties of a good estimator and their statistical significance.</p>
Module 2(Credit 1)	Econometric models and use of first-order tests for empirical models
Learning Outcomes	After learning the module, learners will be able to:
	<ul style="list-style-type: none"> Use the empirical data to develop regression models with two variables and will be able to apply a suitable test criterion to determine the statistical significance of estimated values of their model.
	<ul style="list-style-type: none"> Apply ANOVA and F-statistics to estimate parameters in the regression model.
	<ul style="list-style-type: none"> Determine confidence interval for estimated parameters after learning t standard error test, 't' test and Z-test.

Content Outline	2.1 The application of standard error test, 2.2 't' test, Z-test to determine the statistical significance of the estimate in regression and its parameters in two variable regression model, 2.3 Use of ANOVA table and F test, 2.4 Confidence interval and confidence limits, 2.5 Test of significance of sample correlation coefficient.
Module 3(Credit 1)	Linear Programming Problems with applications
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Develop and construct problems of the firm and other economic entities in LPP form while optimizing an objective function. • Use both graphical solution and simplex method for finding solution to problems relating LPP. • Find dual of an LPP and the symmetry between a primal and a dual for cases of mixed constraints also. • Assess the cases of LPP relating to unbounded solution, infeasible solution and degeneracy.
Content Outline	3.1 What is LPP model? How an LPP problem can be formulated for cases relating to optimization in case of both minimization and maximization, 3.2 Assumptions and importance of LPP and generalization LPP model for 'n' number of variables, Graphical solutions to the LPP of maximization and minimization types with and without mixed constraints, 3.3 Simplex method for solving of maximization problems, Symmetry between primary and dual of an LPP and finding dual with and without mixed constraints, 3.4 The problem of unbounded solution to LPP, degeneracy in LPP and problems with infeasible solution in LPP.
Module 4(Credit 1)	Transportation problem and Game Theory
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Find solution by using different methods of transportation problems. • For economic agents targeting to minimize costs. • Solve the two-person-zero-sum games with and without saddle point.
Content Outline	4.1 Transportation problem and its importance: Solution of a transportation problem by applying the North-West corner rule, least cost method and VAM method. 4.2 Two-person zero-sum game, pure and mixed strategy, 4.3 Constant and non-constant sum games, game with and without saddle point, 4.4 Solution to games with mixed strategy through graphical solution assigning probability to various strategies.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)

3. Presentation/Seminar : (10 Marks)

4. MCQs Test/ Project : (10 Marks)

References:

- Alpha.C.Chiang, Kevin wainwright,(2017)Fundamental Methods of Mathematical Economics, MCGraw Hill Education
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इकोनोमेट्रिक्स:

हिंदी प्रथम संस्करण कॉन्सेप्ट एंड मेट्रिक्स, कल्याणी पब्लिशर्स, नई दिल्ली।

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सीआरसी प्रेस-टेलर और फ्रांसिस गुप.दिल्ली द्वारा प्रकाशित।

Course Title	Demography
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Explain the relationship between population growth and economic development. • Enlightens the quantitative and qualitative aspects of the demography through various demographic techniques. • Differentiate the demographic theories. • Discuss the issues pertaining to changing sex ratio and age structure.
	<ul style="list-style-type: none"> • Examine the family welfare programs in India.
Module 1(Credit 1)	Concept and theories of Demography
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Identify the concept, scope and structure of demography. • Critically evaluate the various theories of demography.
Content Outline	<p>1.1 Meaning, Scope and relevance of Demography, Structure, distribution and sources of Population data in India.</p> <p>1.2 Population growth and economic development,</p> <p>1.3 Theories of population- Malthus optimum theory of population, Theory of demographic transition and India's experience</p> <p>1.4 Views of Dennies Medows, Julien Simon and Stephen Enke on demography.</p>
Module 2(Credit 1)	Pattern of Population- Global and India
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Examine the world, India and state level population trends. • Analyze the sex- ratio related issues and characteristics of population.
Content Outline	<p>2.1 Population Size and Trends in the World population-Trends in population in India</p> <p>2.2 Components of population growth and their interdependence</p> <p>2.3 Structure of population – Age structure, Age pyramids-determinants of age structure, Ageing Population and its socio-economic consequences</p> <p>2.4 Sex ratio- child sex ratio- determinants of sex ratio, imbalance of Sex ratio in India, Factors responsible for declining sex ratio in India.</p>
Module 3(Credit 1)	Fertility, Nuptiality and Mortality
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Review the concepts associated with fertility, nuptiality and mortality. • Analysis the recent trends associated with fertility, nuptiality and mortality in India.

Content Outline	3.1 Basic Measures of Fertility, General Fertility Rate, Age Specific Fertility Rate, Total Fertility Rate, Trends in Fertility in India, socio economic determinants of fertility, 3.2 Nuptiality Analysis – Mean Age at Marriage, Single Mean Age at Marriage – Indian Experience, 3.3 Basic Measures of Mortality - Crude Death Rate, Age Specific Death Rate, Standardization of Death Rates, 3.4 Life Table- Life Expectancy, Infant Mortality Rates, Maternal Mortality Rates, Trends in Mortality and Infant mortality and Maternal Mortality Rates in India, Factors influencing Mortality.
Module 4 (Credit 1)	Sustainable Development and population Policy
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Discuss the issues related to population, and sustainable development. • Evaluate the family welfare programme.
Content Outline	4.1 Population and sustainable development, Population Policies in India, Evolution of population programmes-Family planning to Family Welfare, 4.2 National Rural Health Mission and National Urban Health Mission - their outcomes, 4.3 Population strategies for human development–Population Policy 2000, 4.4 Role of National Population Commission.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Syllabus based Assignments : (20 Marks)
2. Group Discussion/ Book and Article review : (10 Marks)
3. Poster Presentation/Seminar : (10 Marks)
4. MCQs Test/ Project : (10 Marks)

References:

- Asha Bhinde and Tara Kanitkar (2020) Principles Of Population Studies, Himalya Publication, Mumbai
- Bhende Asha, kanitkar Tara (2001). *Principles of Population Studies*. Himalaya Publishing House.
- Jinghan, (1 January 2016) Demography, Vrinda Publications P LT- Delhi
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- Sivaramkrisnan K.C. kundu Amitabh and Sing N. *A handbook on Urbanisation in India*. Oxford University Press
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- United Nations (2001). *World Population Monitoring: Population Environment and Development*.
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Reference Books in Hindi-

- डॉ. जय प्रकाश मिश्र, हिंदी संस्करण, 2016, जनांकिकी, साहित्य भवन प्रकाशन, उदयपुर राजस्थान द्वारा प्रकाशित।
- एस.एन.गुप्ता, 2023, जनांकिकी के मूल तत्व, (जनसांख्यिकी के बुनियादी सिद्धांत) दूसरा संस्करण विज्ञानियस, दिल्ली द्वारा प्रकाशित।
- डॉ.डी.एस. बघेल एवं डॉ. किरण बघेल, द्वितीय संस्करण, जनांकिकी, विवेक प्रकाशन, आगरा, उ.प्र. द्वारा प्रकाशित.

Articles/ Papers

- Birdsall N 1988 Economic Approaches to Population Growth and Development. In: Chenery H B and Srinivasan T N (eds.) Handbook of Development Economics. Elsevier Science Publications, Amsterdam
- Guilmo Christophe Z “Characteristics of Sex Imbalance in India and Future Scenario”
www.unfpa.org/gender/case_studies.htm
- Kulkarni P.M. Shaping India’s Population Policy and Programme: Internal Factors and External Influences, Artha Vijnana, LI (1) 2009: pp.12-38.
- Kulkarni P.M. “Towards an Explanation of India’s Fertility Transition”-George Simmons Memorial Lecture November 2011
www.iasp.ac.in/pdf/simmons%20memorial%20Lecture.pdf
- Kulkarni P.M. “Issues of Data Requirements in the context of the Demographic Transition in India” Country Study paper for India
www.cwsc2011.gov.in/papers/demographic_transition/paper_4/pdf

Major

Code No: 350631

Course Title	Research Proposal and Design
Course Credits	4
Outcomes	After preparing research project, learners will be able to:
	<ul style="list-style-type: none">• Explain the process of conducting research in a systematic and scientific manner.
	<ul style="list-style-type: none">• Learn new skills in research and make their practices.
	<ul style="list-style-type: none">• Conduct filed survey for collecting requisite data for their research work.
	<ul style="list-style-type: none">• Be familiar with various methods of data collection and analysis of data.
	<ul style="list-style-type: none">• Apply different statistical tools useful in their research.
	<ul style="list-style-type: none">• Develop skills in preparing research report and bibliography.

Research can be expected to be conducted in following areas:

Sectoral aspects of the economy, Corporate, Banking and non-banking, financial institutions, NGOs, MSMEs, Educational and Research institutes, Global policy, Government schemes and policies, Private firms, interdisciplinary and case studies and topics related to global, national, regional, and local issues, theoretical aspects of micro and macroeconomics', social issues of current relevance, gender issues rural and urban development, environmental issues, role of different levels of government in the development, behavioral economic issues, demographic issues, brain drain vs brain gain, formal and informal sector, labour issues, physical and social infrastructure etc.

Guidelines:

For research project students can follow the following procedure in consultation of their research supervisor:

- Identification of research problem/ statement /topic.
- Preparing research proposal .
- Review of literature (Minimum 20).
- Presentation of research proposal and review of literature.
- Chapter Scheme
- Preparation of Bibliography

Evaluation will be done on the basis of the Presentation.

Course Syllabus

Semester-IV

Major (Core) Code No. :410611

Course Title	Advanced Macroeconomic
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> • Explain the concept of inflation and its impact • Analyze traditional and modern theories of trade cycles
	<ul style="list-style-type: none"> • Learn the efficacy of various monetary and fiscal policy measures to control trade cycle
	<ul style="list-style-type: none"> • Comprehend the impact of Short run and long run Phillips Curve.
	<ul style="list-style-type: none"> • Illustrate the different types of exchange rates, balance of payments: Mundell-Fleming model under fixed and flexible exchange rate regimes
Module 1(Credit 1)	Theories of Inflation
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Explain the inflation and inflationary gaps, economic structure affecting inflation in an economy • Analyze the trade-off between inflation and unemployment. • Differentiate short-run and long-run Philips curve. • Examine the role of adaptive expectation and natural rate of unemployment.
Content Outline	1.1 Meaning and types of inflation: traditional and modern views on inflation 1.2 concept of inflationary and deflationary gap: Structuralistic approach to inflation 1.3 Short run and long run Phillips curve: absence of trade-off in long-run Phillips curve, 1.4 Friedman's natural rate of unemployment and adaptive expectation hypothesis, Rational expectations, Tobin's modified Phillips curve
Module 2(Credit 1)	Business Cycles
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Differentiate monetary and non-monetary theories of trade cycles. • Analyze efficacy of monetary and fiscal measures to control business cycle.
Content Outline	2.1 Monetary of theory trade cycle of Hawtrey and Hayek's over investment theory, 2.2 Theories of trade cycles by Schumpeter, Kaldor, Samuelson, Hicks and Goodwin's, 2.3 Control of business cycles; relative efficacy of monetary and fiscal policies.

Module 3(Credit 1) Macro Economic Policy	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Interpret the lags in the effects of monetary and fiscal policies in an economy.
	<ul style="list-style-type: none"> • Examine the relevance of activist policy and automatic stabilizer.
Content Outline	<ul style="list-style-type: none"> • Analyze the impact of financial crisis of 2008 and covid-19 pandemic on global economy.
	3.1 Lags in the effects of monetary and fiscal policy, 3.2 Automatic stabilizers, Activist policy, inflation targeting, 3.3 Global financial crisis 2008 and its impact on Indian economy, 3.4 COVID-19 Pandemic and its global impact.
Module 4(Credit 1) Balance of Payments and Exchange Rate	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Describe the fixed and flexible exchange rate regime with their relative merits.
	<ul style="list-style-type: none"> • Examine Mundell-Fleming model with perfect capital mobility.
Content Outline	<ul style="list-style-type: none"> • Analyze the efficacy of monetary and fiscal policy in raising national income with the help of IS-LM and balance of payment model.
	4.1 Structure of balance of payments, 4.2 Fixed and flexible exchange rates regime. 4.3 IS-LM-BP model, 4.4 Impact of monetary and fiscal policy under fixed and flexible exchange rate regime within the framework of Mundell-Fleming Model with perfect capital mobility.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Assignments/ Projects on syllabus based (20 Marks)
2. Group Discussion/ /Book or article review (10 Marks)
3. Syllabus based Model presentation through ICT (10Marks)
4. MCQs Test (10 Marks)

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Semester- IV**Major (Core)****Code No. : 410612**

Course Title	Sectoral Aspects of Indian Economy
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Describe the changes in agricultural sector of India. • Illustrate the performance and problems of industrial sector in India. • Examine the principles, structure and progress of co-operatives in India • Review and analyze the impact of external sector on the Indian economy.
Module 1(Credit 1)	Agricultural Sector
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Analyze trend in agricultural production, causes and remedies of low agricultural productivity. • Elaborate problems of agricultural labor: women and child labor. • Interpret recent changes in agricultural policy and impact of AOA on Indian agriculture.
Content Outline	1.1 Trend in agricultural productions and productivity; causes of low productivity and its remedies 1.2 Problems of agricultural labour. Problems relating child labor and women labor, Agricultural price policy 1.3 Recent agrarian reforms: the New Farm Laws, sustainable agriculture 1.4 Agreement on Agriculture under WTO and its impact on Indian agriculture.
Module 2(Credit 1)	Industrial sector in India
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Discuss the changing pattern of industrialization in India and industrial policy since 1991. • Examine the Progress and challenges of Public sector, private sector and MSMEs. • Describe Make in India policy of the government.
Content Outline	2.1 Changing growth and pattern of industrialization 2.2 Industrial policy of 1991 and onwards 2.3 Private and Public sector enterprises: trends and performance in last two decade, Progress, challenges and policies on MSMEs 2.4 Make in India: issues and challenges.
Module 3(Credit 1)	Co-operative sector in India
Learning	After learning the module, learners will be able to <ul style="list-style-type: none"> • Explain the Principles and structure of co-operative sector

Outcomes	<ul style="list-style-type: none"> Describe types, performance and progress of co-operative sector since 1991.
	<ul style="list-style-type: none"> Elaborate the overall issues in cooperative sector in India.
Content Outline	3.1 Principles of co-operation in India, Structure of co-operative sector 3.2 Types of co-operative institutions in India, 3.3 Development of co-operative sector since 1991, 3.4 Role of co-operative sector in rural development, Overall issues in cooperative sector in India.
Module 4(Credit 1) External sector	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Examine the trend in composition and direction of India's foreign trade.
	<ul style="list-style-type: none"> Analyze sector-wise flow of FDI since 2001 and role of MNCs in India.
Content Outline	<ul style="list-style-type: none"> Explain the concept of NEP and de-globalization in India. 4.1 Composition and direction of India's foreign trade since 2001, 4.2 Review of foreign trade policies since 2001, FEMA, 4.3 Sector-wise flow of FDI since 2001 and role of MNCs in India. 4.4 De-globalization concept and Impact of New Economic Policy on Indian economy

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

- | | |
|---|-------------|
| 1. Assignments/ Projects on syllabus based | (20 Marks) |
| 2. Debate/ Elocution/ Group presentation | (10 Marks) |
| 3. Seminar/ Poster presentation on syllabus based | (10Marks) |
| 4. MCQs Test | (10 Marks) |

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Semester- IV**Major (Core) Code No. : 410613**

Course Title	Urban Economics
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Describe the various terminologies and their significance in urban economics. • Evaluate the theories of urban growth in context to India. • Illustrate the interrelationship between migration and urban growth. • Examine the urban problems and policies for urban development in India.
Module 1(Credit 1)	Introduction to Urbanization
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Illustrate the concepts, process and indicators of urbanization. • Describe the interrelationship between industrialization and urbanization. • Review the trends of urbanization at global level and in India.
Content Outline	1.1 Definition and basic concepts of Urbanization, Process of urbanization, Indicators of urbanization, Level of urbanization, Rate of urbanization, 1.2 Classification of cities in India. 1.3 Interrelationship between industrialization and urbanization, 1.4 Urbanization as a global view, trends of urbanization in India.
Module 2(Credit 1)	Migration and urban growth
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Examine the components of urban growth. • Analyze the interrelationship between migration and urban growth. • Evaluate the various theories of migration.
Content Outline	2.1 Components of urban growth: Natural growth, migration, Addition of net new towns, 2.2 Migration and urbanization: causes and consequences of migration and changing dynamics of migration, 2.3 Theories of migration: Lewis, Fei and Ranis, Revenstein, Everet Lee and Todaro. 2.4 Contribution of migration in urban growth in India.
Module 3(Credit 1)	Theories of Urban Growth
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Evaluate the theories of urban growth and their relevance in the context of India. • Simplify the rank size distribution of cities. • Explain the concept of agglomeration economics.

Content Outline	3.1 Central place theory, 3.2 Economic base theory: base ratio and concept of economic base multiplier, 3.3 Dependency theories, 3.4 Agglomeration economics, Rank size distribution of cities.
Module 4 (Credit 1) Urban problems and policies	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Discuss the urban problems and policies with special reference to India.
	<ul style="list-style-type: none"> • Evaluate urban poverty alleviation policies. • Examine the mission of smart cities and NULM.
Content Outline	4.1 Urban unemployment, urban poverty, 4.2 Urban poverty alleviation programmes, National Urban Livelihood Mission (NULM), 4.3 Urban informal economy: informal work and poverty nexus. 4.4 Urban infrastructure: Problem of urban housing and transportation. Smart city mission in India,

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Assignments / Projects on syllabus based (20 Marks)
2. Role play / Debate/Group Discussion (10 Marks)
3. Research paper / Seminar on Urban issues (10 Marks)
4. MCQs Test (10 Marks)

References:

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Semester- IV**Major (Elective)****Code No: 420611**

Course Title	Gender and Economic Development
Course Credits	4
Course Outcomes	After going through the course, learners will be able to <ul style="list-style-type: none"> • Comprehend the major concepts of women studies and issues. • Evaluate the conceptualization of women's activity and decision-making along with economic and social dimensions • Examine the role of technology and environment in women development. • Analyze the issues relating to social security and women empowerment.
Module 1(Credit 1)	Introduction to Economics of Gender
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Explain the importance and role of women's studies in developing countries. • Analyze the approach of WID-WAD-GAD in Women Studies.
Content Outline	1.1 Importance of women studies, Role of women in Indian society. 1.2 Economic basis and functioning of patriarchy in developed and developing countries 1.3 Gender bias in the theories of value, distribution, and population. 1.4 Feminist criticism of development Indices and Women in Development, Women and Development: Gender and Development (WID-WAD-GAD),Invisibility of women in GDP.
Module 2(Credit 1)	Conceptualization of Women's Work and Decision Making
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Elaborate concepts and types of women's work. • Explain the status and work participation rate in India.
Content Outline	2.1 Women in organized and unorganized sector, Types of women's work 2.2 Factors affecting decision-making by women; property rights, access to and control over economic resources, 2.3 Economic status of women and its effect on work-participation rate, income level 2.4 Health, and education of women in developing countries and India.
Module 3(Credit 1)	Women, Technology and Environment
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> • Enumerate the impact of technology on women's work. • Recognize the role of women in sustainability. • Interpret the role of women in different policies of the government.

Content Outline	3.1 Impact of technological development and modernization on women's work participation in general and agriculture, non-agriculture rural activities 3.2 Role of women in MSMEs 3.3 Gender, environment and sustainable development, Gender and climate change 3.4 Garib Kalyan Yojana, Skill India, Stand-up India, Start-up India and Make in India with reference to women.
Module 4 (Credit 1) Social Security, Gender Planning and Policies	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Illustrate different social security schemes and gender planning techniques. • Explain concept of women empowerment and financial inclusion.
Content Outline	4.1 Social security of women: entitlements, ensuring economic independence and risk coverage, access to credit and insurance markets 4.2 Gender and development indices; mainstreaming gender into development policies; Gender planning techniques. 4.3 Concept of women empowerment, Democratic decentralization (Panchayats) and women's empowerment in India 4.4 Women empowerment and financial inclusion: Aatmanirbhar Bharat Yojana, Gender responsive budgeting, financing for gender equality.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

1. Assignments /Project/Presentation (20 Marks)
2. Group Discussion/Debate (10Marks)
3. Films screening, Documentary films on Gender equality–
report submission (OR) field visit report (10 Marks)
4. MCQs Test (10 Marks)

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- <https://www.weforum.org.in> -full

Semester- IV

Major (Elective)

Code No. :420612

Course Title	Applied Econometrics
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Estimate the OLS parameters of model with 2 explanatory variables and test their level of significance
	<ul style="list-style-type: none"> Interpret the consequences of heteroscedasticity and multicollinearity and autocorrelation.
	<ul style="list-style-type: none"> Make application of various variables in building lagged econometric models.
Module 1(Credit 1)	Multiple linear regression model, estimation of parameters and ANOVA
	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Estimate the OLS parameters of model with 2 explanatory variables.
	<ul style="list-style-type: none"> Test the significance level of estimated parameters and random term using various statistics including ANOVA.
Content Outline	<p>1.1 Linear regression model with 2 explanatory variables with illustrative problems.</p> <p>1.2 Estimation of parameters α, β_1, β_2 using OLS criterion, mean, standard deviation and variation of estimated parameters,</p> <p>1.3 The coefficient of multiple determination, test of significance of parameter estimates using standard error tests,</p> <p>1.4 'T' test, method of ANOVA in regression with 3 variables and testing the regression with F ratio.</p> <p>1.5 Testing overall significance of regression, testing the improvement of fit obtained from additional explanatory variable.</p>
Module2(Credit1) Homoscedasticity, heteroscedasticity and Autocorrelation and multicollinearity	
Learning Outcomes	After learning the module, learners will be able to
	1. Examine the violation of assumptions of CLRM.
	2. Differentiate the concepts of homoscedasticity and heteroscedasticity.
	3. Illustrate the concept and consequences of multicollinearity and autocorrelation.
Content Outline	<p>2.1) The violation of assumptions of CLRM, its consequences,</p> <p>2.2 Homoscedasticity and heteroscedasticity, any one test for Homoscedasticity,</p> <p>2.3 Meaning and consequences of multi co-linearity</p> <p>2.4 Meaning of autocorrelation, measure of first order linear autocorrelation, sources of autocorrelation, mean and variance of auto-correlated U's, consequences of autocorrelation, Durbin-Watson Test</p>

Module 3(Credit 1) Errors in variables and lagged variables	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Apply time as a variable, dummy variables, exogenous and endogenous lagged variables in model building.
	<ul style="list-style-type: none"> • Use dummy variable for measuring shift of a function over time and changes in slope of parameters over time.
Content Outline	3.1 Errors in variables, 3.2 Time as a variable, dummy variables, exogenous and endogenous lagged variables, 3.3 Methods of estimating models involving lagged values of endogenous variables, 3.4 Use of dummy variable for measuring shift of a function over time, 3.5 Use of dummy variable for measuring the changes in slope of parameters
Module 4(Credit 1) Simultaneous equation models and identification	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Explore and develop models of simultaneous equation, structural and reduced forms
	<ul style="list-style-type: none"> • Use order and rank conditions of identification
	<ul style="list-style-type: none"> • Solve simultaneous equation system using different methods of estimation.
Content Outline	4.1 Simultaneous equation bias and inconsistency of OLS estimators, the structural and reduced form of Simultaneous equation models 4.2 Identification problem, order and rank conditions of identification, identification from the reduced form, 4.3 Simultaneous dependence of economic variables, Methods of estimating Simultaneous equation system, 4.4 Recursive method and OLS, Indirect least squares (ILS), 2SLS methods.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

- | | |
|--|-------------|
| 1. Assignments/ Projects– syllabus based | (20 Marks) |
| 2. Surprise test | (10 Marks) |
| 3. Applied test | (10 Marks) |
| 4. MCQs Test | (10 Marks) |

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- उमान उल्लाह,2020, एप्लाइड इकोनोमेट्रिक्स और सांख्यिकीय हस्तक्षेप की हैंडबुक प्रथम संस्करण,
सीआरसी प्रेस-टेलर और फ्रांसिस ग्रुप द्वारा प्रकाशित। दिल्ली।

Semester- IV**Major (Elective)****Code No. :420613**

Course Title	Environmental Economics
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to</p> <ul style="list-style-type: none"> • Identify the role of environment in the economic process with merits and demerits of market based and control mechanism. • Describe the welfare theories and relationship of urbanization and Pollution • Recognize and apply valuation techniques and undertake a basic environmental cost benefit analysis. • Analyze the issues involved in meeting the challenges of climate change.
Module 1(Credit 1) Basic Environmental Issues	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> • Elaborate the relationship between environment and ecology and discuss the various approaches to it. • Discuss the sustainable development concept, indicators and Kuznets Curve.
Content Outline	<p>1.1 Environment and Ecology; Linkages between Ecology, Environment and Ecosystems 1.2 Material Balance Approach, Principles of Uncertainty, Irreversibility, Inter-Temporal Efficiency, Inter-Generational Equity; 1.3 Trade-off between environment and development, economic cost of environmental damages with reference to India 1.4 Sustainable Development: concepts and Indicators, Environmental Kuznets Curve.</p>
Module 2(Credit 1) Welfare economics and Environment	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> • Summarize the economics implications of environmental theories • Enumerate the issues related to environmental pollution and market failure in public goods
Content Outline	<p>2.1 Economic aspects of environment: Pareto optimality and competitive equilibrium, Market failures; 2.2 Theories of Externality and Public Goods, Free Rider's Problem, Optimal Provision of Public Goods 2.3 Property Rights and Transaction Costs; 2.4 Common Property Resources: Tragedy of Commons, Land use: Deforestation, Urbanization and their Impact on Environment.</p>
Module 3(Credit 1) Environmental Valuation techniques	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> • Illustrate different valuation techniques of environment and quantification of environmental damages

	<ul style="list-style-type: none"> Differentiate the Environmental Impact Assessment between valuation of Land, Forest and Mineral Resources.
Content Outline	3.1 Environmental damages and benefits, 3.2 Social Cost Benefit Analysis; concepts relating use value, option Value and non-use value and total economic value, 3.3 Valuation Techniques: Market and Non-Market, Scientific, Behavioral and Technological methods, Measures of environment: Production Based, Contingent Valuation, Hedonic-Pricing, Travel Cost Method, 3.4 Risk Assessment: Environmental Impact Assessment; Valuation of Land, Forest and Mineral Resources.
Module 4(Credit 1)	Economics of Resource Management
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> Describe the theories of resources management. Identify the measures taken by government to globally to save our valuable resources.
Content Outline	4.1 Theories of optional use of exhaustible and renewable Resources, 4.2 integrated Environmental and Economic Accounting and the Measurement Environmentally Corrected GDP, 4.3 Ecological Footprint Analysis; Comprehensive Wealth and Genuine savings; 4.4 Global Environmental Governance.

Assignments/Activities Towards Comprehensive Continuous Evaluation (CCE)

- | | |
|---|------------|
| 1. Assignments/ Projects on syllabus based | (20 Marks) |
| 2. Debate/ Elocution /poster and quiz | (10 Marks) |
| 3. Test on Environmental Valuation techniques | (10 Marks) |
| OR | |
| Case study of social cost benefit analysis | (10 Marks) |
| 4. MCQs Test | (10 Marks) |

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- एस.के.ओझा, 2019, प्रकृति और पर्यावरण -एनसीईआरटी -पारिस्थितिकी और पर्यावरण प्रथम संस्करण,
बौद्धिक प्रकाशन, नई दिल्ली द्वारा प्रकाशित।
- गुल्लीबाबा.कॉम पैनेल 2021, सामाजिक क्षेत्र और पर्यावरण अर्थशास्त्र, , हिंदी संस्करण गुल्लीबाबा पब्लिशिंग हाउस प्राइवेट लिमिटेड द्वारा प्रकाशित। लिमिटेड दिल्ली,

(Major)

Code No: 450631

Course Title	Research Analysis and Report
Course Credits	6
Outcomes	After preparing research project, learners will be able to:
	<ul style="list-style-type: none">• Explain the process of conducting research in a systematic and scientific manner.
	<ul style="list-style-type: none">• Learn new skills in research and make their practices.
	<ul style="list-style-type: none">• Conduct filed survey for collecting requisite data for their research work.
	<ul style="list-style-type: none">• Be familiar with various methods of data collection and analysis of data.
	<ul style="list-style-type: none">• Apply different statistical tools useful in their research.
	<ul style="list-style-type: none">• Develop skills in preparing research report and bibliography.

Guidelines:

For research project students can follow the following procedure in consultation of their research supervisor:

- Preparation of interview/ schedule/questionnaire
- Data collection from primary (Sample size- minimum 50)and secondary sources
- Data analysis
- Testing of Hypotheses (if applicable)
- Findings and suggestions
- Report writing and submission of spiral binding
- Presentation and Viva-Voce
- Submission of hard bound copy after the incorporation of suggestions given by the referees.

Note:- Valuation will be done on the basis of the Presentation and Viva Voce.