Detailed Syllabus

Semester I

Course Code	Discipline Specific Core		Level
UK1DSCECO100	Principles of Economics	DSC	100-199
UK1DSCECO101	Fundamentals of Microeconomics	DSC	100-199
UK1DSCECO102	History of Economic Thought	DSC	100-199
UK1DSCECO103	Issues of Indian Economy	DSC	100-199
UK1DSCECO104	Regional Economics	DSC	100-199
UK1DSCECO105	Agricultural Economics	DSC	100-199
Multi-Disciplinary Course (can select one)			
UK1MDCECO100	Economics for Everyone	MDC	100-199
UK1MDCECO101	Sustainable Development	MDC	100-199

Discipline Specific Core

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1DSCECO100				
Course Title	PRINCIPLES OF ECONOMICS				
Type of Course	DSC				
Semester	I				
Academic Level	100 - 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites	Basic understanding of Economics				
Course Summary	The course introduces the fundamental concepts, theories, and principles of Economics. It provides a necessary foundation for understanding the workings of economies at the micro and macro levels.				

Detailed Syllabus:

Module	Unit	Content	Hrs.
I		**Introduction to Economics**	
		Economics-Definitions-Scarcity and Choice- -Trade-offs in Economics, opportunity cost-Rationality	
		Role of Assumptions-Economic Models-Circular Flow of Income. Production Possibility Frontier- Positive and Normative Economics. Techniques of Economic Analysis: Theories, Models, and Tools.	
		Micro and Macro Economics, Capitalism-Socialism-Mixed Economy-Market Economy	
II		**Principles of Micro Economics**	15
		Demand and Supply-Determinants-Shifts in demand and supply curves- -the role of Prices in allocating resources.	
		Equilibrium – Elasticity (Types of elasticity, measurement of elasticity) -Consumer equilibrium – Utility-Marginal utility – Consumer surplus -Production – factors of production, production function – Laws – Total Revenue, Average Revenue, Marginal Revenue	
		Costs – Total Cost, Variable and Fixed costs, Average Cost, Marginal cost– Short Run and Long Run cost curves.	
III		**Principles of Macroeconomics**	15
		Basic issues in macroeconomics-instability of output, Inflation, unemployment, Inflation and Unemployment relationship, stability, and business cycles (basic concepts only).	
		Measurement of macroeconomic variables-National Income Accounting.	
		Measurement of gross domestic product- product, income, and expenditure method- Personal income and disposable income- real versus nominal GDP.	
IV		**Economic Development and International Trade.**	
		Meaning of Development – Development and Growth - Obstacles to Growth - measuring development- GDP, PCI, HDI, PQLI, GDI and MDPI	
		International Trade-Absolute Advantage-Comparative Advantage-Gains from Trade.	
V		**Analysis of Economic Issues**	10
		Discussion on Income Inequality-Measurement of income inequality-Poverty-Unemployment-Trade Protectionism-Climate Change-Technological Disruption-Debt.	
		Economic data sets can be used to assess and analyze economic growth rates, unemployment, inflation, and other economic measures.	

		Datasets containing economic data can be analyzed using graphs to understand trends and patterns and draw conclusions about economic and structural changes.	

Reading List

Gregory Mankiw, Principles of Economics (2019), Cengage.

Richard T Froyen, Macro Economics-Theories, and Policies, Pearson

Stephen Dobson and Susan Palfreman, Introduction to Economics, Oxford University Press Samuelson, Paul A and William D Nordhaus, Economics (18th Edition), Mc Graw Hill. Nilanjan Banik, "The Indian Economy: A Macroeconomic Perspective", Sage Publication https://data.worldbank.org/ https://www.imf.org/en/Data Economic Survey, GOI www.mospi.nic.in www.censusindia.gov.in

David Begg, Gianluigi Vernasca, Stanley Fischer, and Rudiger Dornbusch Economics 12th Edition, McGraw Hill.

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Solid understanding of the fundamental economic concepts and theories.	R, U	PSO-1
CO-2	Analyze economic problems and make informed decisions using economic reasoning.	R, U, Ap, An, E, C	PSO-1 PSO-2
CO-3	Apply economic principles to evaluate real-world problems and to provide solutions.	R, U, Ap, An, E, C	PSO-2
CO-4	Interpret economic data and trends to assess economic performance	R, U, Ap, An, E	PSO-3

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No	CO	PO/PSO	Cognitive Level	Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Solid understanding of the fundamental economic concepts and theories.	PO-1 PSO-1	R, U	F, C	L	
CO-2	Analyze economic problems and make informed decisions using economic reasoning.	PO-2 PSO-1 PSO-2	R, U, Ap, An, E, C	C, P	L	

CO-3	Apply economic principles to evaluate real-world problems and to provide solutions.	PO-2 PSO-2	R, U, Ap, An, E, C	P, M	L	
CO-4	Interpret economic data and trends to assess economic performance	PO-3 PO-7 PO-8 PSO-3 PSO-6	R, U, Ap, An, E	P, M	L	

F-Factual, C- Conceptual, P-Procedural, M-Met cognitive

Mapping of COs with PSOs and POs:

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	Average
CO1	3	2	-	-	-	2	-	-	3	2	-	-	-	2	2.34
CO2	2	3	2	-	1	2	-	-	3	3	-	1	-	2	2.11
CO3	1	3	2	-	1	2	1	-	2	3	1	2	1	2	1.75
CO4	2	3	1	-	-	1	3	2	2	2	3	-	-	3	2.2
Average	2	2.75	1.67		1	1.75	2	2	2.5	2.5	2	1.5	1	2.25	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO	Internal Exam	Assignment	Project Evaluation	End Semester Examination

CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	✓	✓
CO4	✓	✓	✓	✓

University of Kerala

<table>
<tr><td>Discipline</td><td colspan="5">ECONOMICS</td></tr>
<tr><td>Course Code</td><td colspan="5">UK1DSCECO101</td></tr>
<tr><td>Course Title</td><td colspan="5">FUNDAMENTALS OF MICROECONOMICS</td></tr>
<tr><td>Type of Course</td><td colspan="5">DSC</td></tr>
<tr><td>Semester</td><td colspan="5">I</td></tr>
<tr><td>Academic Level</td><td colspan="5">100 - 199</td></tr>
<tr><td rowspan="2">Course Details</td><td>Credit</td><td>Lecture per week</td><td>Tutorial per week</td><td>Practical per week</td><td>Total Hours/Week</td></tr>
<tr><td>4</td><td>4 hours</td><td>-</td><td>-</td><td>4</td></tr>
<tr><td>Pre-requisites</td><td colspan="5">Basic Understanding of Economics</td></tr>
<tr><td>Course Summary</td><td colspan="5">The course introduces the fundamental principles of microeconomics focusing on consumer behavior, production, costs, market structures, and welfare.</td></tr>
</table>

Detailed Syllabus:

Module	Unit	Content	Hrs
I		**Demand, Supply, and Equilibrium**	**12**
	1	Definition and Scope of Microeconomics	
	2	Determinants of individual demand and supply - Law of Demand and Law of Supply	
	3	Demand schedule and supply schedule - Demand curve and supply curve	
	4	Market and Individual demand and supply - Shifts in Demand and supply curves - Market equilibrium	
	5	Elasticity of Demand; Classification of Commodities - Normal, inferior, and Giffen goods, Point and Arc Elasticity, Cross, Price and Income Elasticity of Demand – - Elasticity of Supply - Consumer surplus	
II		**Consumer Behavior**	**15**
	5	Cardinal utility theory - Law of diminishing marginal utility - Derivation of demand curve - Ordinal utility theory: Indifference curves and their properties - Budget line - Consumer equilibrium - Income Consumption Curve - Price Consumption Curve - Income and substitution effect	
III		**Theory of Production and Costs**	**12**
	9	The concepts of TR, MR, AR - Production function - Law of variable proportions, Returns to scale - Isoquants and its properties - Iso-cost lines - MRTS - Equilibrium of the producer, Constrained output maximization and Constrained cost minimization - Expansion Path. Fixed and Variable cost - AC & MC - Economies and diseconomies of scale (concepts only).	
IV		**Market Structures and Welfare Economics**	**12**
	18	Perfect Competition - features and assumptions - long run and short run equilibrium - Monopoly - short run and long run equilibrium - Monopoly power - Price discrimination - Social cost of monopoly. Oligopoly-features-Kinked Demand Curve- Welfare Economics- Criteria for Welfare (Pareto Criterion and Compensation Principle).	
V		**Application Sessions**	**9**
	23	Graphical Analysis- Demand and supply-equilibrium-shifts in demand and supply- solving simple numerical problems related to demand and supply-case studies to apply economic concepts and market structures to real-world situations.	

Reading List

Microeconomics Robert S. Pindyck, Daniel L. Rubinfield & P L Mehta

C. Snyder and W Nicholson(S-N): Fundamentals of Microeconomics, Cengage Learning .2 (India), 2010, Indian Edition

Gregory Mankiw. Principles of Economics (2019), Cengage.

Samuelson, Paul A and William D Nordhaus "Economics" (18th Edition), Mc Graw Hill.

Dominic Salvatore (2011), Microeconomic Theory, Ed. 4, Schaum's Outline Series, McGraw Hill, Inc., New Delhi

Web Resources

1. https://bit.ly/3vmzfdq
2. https://www.aeaweb.org/aej-micro/
3. https://microeconomicinsights.org/ 4. https://journals.sagepub.com/home

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand basic concepts and principles of microeconomics.	R, U	PSO-1 PO-1
CO-2	Analyze and evaluate consumer theory, production, cost, market structures, and welfare economics.	R, U, Ap, An, E	PSO-3 PO-1
CO-3	Apply economic reasoning to evaluate real-world situations and policy implications.	R. U, Ap, An, E, C	PSO-3 PO-1
CO-4	Design policy proposals (suggest policy recommendations) to address issues relating to the behaviour of consumers and producers, inefficiencies in the market, and measurement of welfare.	R, U, Ap, An, E, C	PSO 2 PO 2 PO 3

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)

CO-1	Understand basic concepts and principles of microeconomics.	PSO-1 PO-1	R, U	F, C		
CO-2	Analyze and evaluate consumer theory, production, cost, market structures, and welfare economics.	PSO-3 PO-1	R, U, Ap, An, E	C, P		
CO-3	Apply economic reasoning to evaluate real-world situations and policy implications.	PSO-3 PO-1	R, U, Ap, An, E, C	P, M		
CO-4	Design policy proposals (suggest policy recommendations) to address issues relating to the behaviour of consumers and producers, inefficiencies in the market, and measurement of welfare.	PSO 2 PO 2 PO 3	R, U, Ap, An, E, C	P, M		

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	Average
CO1	3	-	-	-	-	-	3	2	-	-	-	2	2.5
CO2	-	-	3	-	-	1	3	2	-	-	-	2	2.2
CO3	-	-	3	1	-	2	3	2	2	-	-	3	2.28
CO4	-	3	-	2	1	2	2	3	3	1	-	3	2.22
Average	3	3	3	1.5	1	1.67	2.75	2.25	2.5	1	0	2.5	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	✓	✓
CO4	✓	✓	✓	✓

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1DSCECO102				
Course Title	HISTORY OF ECONOMIC THOUGHT				
Type of Course	DSC				
Semester	1				
Academic Level	100 – 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4hours	-		4
Pre-requisites	Basic understanding of the evolution of economic thought				
Course Summary	The course aims to provide students with an overview of the evolution of economic thought and help them grasp the analytical foundations and ideologies put forth by influential economists throughout history. By studying the works of these thinkers, students can gain insights into the diverse perspectives that have shaped economic theory and policy.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	**Introduction and Early Economic Thought**		**10**
	1	Nature and significance of History of Economic Thought.	
	2	Economic Ideas of Aristotle, Plato – Main Economic Ideas of Mercantilists and Physiocrats- (mention important economists of Mercantilism and Physiocracy and their major ideas. Need not go into the details)	
II	**Classical, Socialist, and Marxian School**		**15**
	1	Important contributions of Adam Smith – (division of labour, theory of value, concept of laissez-faire) David Ricardo – (theory of value, stationary state) - J.B. Say – (law of market) Malthus – (population theory and theory of glut) J.S. Mill – (reciprocal demand)	
	2	Basic tenets of Marxian Political Economy: stages of development – theory of surplus value, theory of capitalist crisis.	
III	**Marginalism and Neo-classical School**		**15**
	1	Difference between classical and neo-classical approach	
	2	Important ideas of Carl Menger, Leon Walras, Wilfredo Pareto	
	3	Importance of Alfred Marshall in Neo-classical economics (main contributions only)	
IV	**Keynes and post-Keynesians**		**15**
	1	Keynes as a critic of Classical Economics (introduce important books of Keynes). Keynesian concept of the Welfare State	
	2	Post-Keynesian developments – monetarism, rational expectation school, Neoliberalism	
V	**Indian Economic Thought (Activities)**		**5**
	1	Discuss the economic ideas of Kautilya and Thiruvalluvar,	
	2	Drain theory of Dadabhai Naoroji Trusteeship and other economic ideas of Gandhiji–Ambedkar.	
	3	Assignment on the contributions of important Indian economists like MG Ranade, DR Gadgil, CN Vakil, PR Brahmananda, PC Mahalanobis, VKRV Rao, Amartya Sen	

References

1. Eric Roll (1956): History of Economic Thought, 3rd, Englewood Cliffs, N.J..Prentice Hall, Inc, 1956

2. Goddanti Omkarnath (2016) ‘Indian Development Thinking’ from Handbook of alternative theories of economic development Edited by Erik S. Reinert, Jayati Ghosh and Rainer Kattel
3. Dasgupta, Ajit K. (1993): A History of Indian Economic Thought, Routledge, London
4. Lokanathan V (2013): A History of Economic Thought, S Chand & Company Ltd, New Delhi
5. Roy, Tirthankar (2020) – The Economic History of India 1857–2010, Oxford University Press
6. Habib, Irfan (2014) Indian Economy Under Early British Rule: 1757–1857, Tulika Books
7. Dutt Romesh Chunder (2023) The Economic History of India, Life Span Publishers
8. Chandra, Bipan (2016) The Rise and Growth of Economic Nationalism in India, Anamika Publishers
9. Gupta, Bishnupriya (2025) An Economic History of India, Cambridge University Press
10. Kumar, Dharma (Ed.) (2007),The Cambridge Economic History of India, Vol. II, Orient Blackswan
11. Bagchi Kumar Amiya (2007) Private Investment in India 1900–1939, Cambridge University Press
12. Guha, Sumit (2006) Environment and Ethnicity in India, 1200–1991, Cambridge University Press
13. Drèze Jean & Sen, Amartya (2020), An Uncertain Glory: India and its Contradictions, Penguin Random House

Additional Reading

1. Rangarajan, L.N. (2001): Kautilya – The Arthasastra, Penguin Books India Pvt.Limited, New Delhi
2. Singh, V.B. (1975): From Naoroji to Nehru – Six Essays in Indian Economic Thought, The Macmillan Company of India Limited, New Delhi.
3. Ajit K. Dasgupta, Gandhi’s Economic Thought, Routledge, London. Year.
4. Blaug Mark, (1997) Economic Theory in Retrospect, 5th Edition, CambridgeUniversity Press, Cambridge, UK

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed

CO-1	Understand and explain important ideas and principles of various schools of economics, which influenced the shaping of the present world in its current state.	R, U	PSO-1, 3
CO-2	Examine the transition of economic history.	R,U, Ap, An	PSO- 1,3
CO-3	Evaluate different economic theories taking into account their historical context.	R,U, Ap, An , E	PSO- 1, 3
CO-4	Propose innovative solutions to current economic problems based on historical insight.	R,U, Ap, An , E,C	PSO- 1, 3

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Understand and explain important ideas and principles of various schools of economics, which influenced the shaping of the present world in its current state.	PO- 1 PSO-1, 3	R, U	F, C	L	
CO-2	Examine the transition of economic history.	PO- 1, 3 PSO 1,3	R,U, Ap, An	P	L	
CO-3	Evaluate different economic theories taking into account their historical context.	PO- 1,3 PSO 1, 3	R,U, Ap, An , E	C, P	L	
CO-4	Propose innovative solutions to current economic problems based on historical insight.	PO- 1,3 PSO 1, 3	R,U, Ap, An , E,C	C, P	L	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	Average
CO1	3	-	2	-	-	-	3	-	1	-	-	2	2.2
CO2	3	-	3	1	-	-	3	1	2	-	-	2	2.14
CO3	3	-	3	-	-	1	3	-	3	1	-	3	2.43
CO4	3	-	3	2	1	2	3	2	3	2	1	3	2.27
Average	3	0	2.75	1.5	1	1.5	3	1.5	2.25	1.5	1	2.5	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics :

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	-	✓
CO4	✓	✓	✓	✓

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1DSCECO103				
Course Title	ISSUES IN INDIAN ECONOMY				
Type of Course	DSC				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites	An understanding of India's economic scenario.				
Course Summary	This course provides an in-depth understanding of the development process, issues, and challenges ahead of the Indian Economy.				

Detailed Syllabus:

Module	Unit	Contents	Hrs
I		**Structural Issues in Indian Economy**	**10**
	1	Features of Indian economy – Demographic Features - Urbanization in India; Issues and Challenges	
	2	Informal Sector; Gig Economy, Drawbacks	
	3	Unemployment; Trends, Problems and Measures - Jobless growth and skill mismatch	
	4	Status of India in HDI -Poverty and Inequality in India; Trends, Alleviation Programmes	
II		**Status of Indian Agriculture**	**10**
	5	Role of Agriculture in Indian Economy – Green Revolution, White Revolution and Blue Revolution	
	6	Growth Trends in Agriculture; Productivity -PDS	
	7	Hunger- Malnutrition and Food Security in India	
III		**Challenges in Industry and Service Sector in India**	**13**
	8	Role of Industry in Indian Economy – New Industrial Policy 1991	
	9	Performance of Public Sector Enterprises- Problems in MSMEs	
	10	Policy Initiatives; Make in India, Start-Up India, Atmanirbhar Bharat (Vision and Mission only)	
	11	Role of Service Sector in Employment, Sustainable Issues in Service-Led Growth	
	12	Banking Sector Reforms: Concerns and Challenges	
IV		**Public Policy and Foreign Trade**	**15**
	13	Stabilizing Inflation; The Role of Monetary Policy	
	14	Issues in Public Debt; Role of Fiscal Policy	
	15	Fiscal Federalism in India; Emerging Challenges	
	16	BoPs Status in India – Direction and Magnitude of Foreign Trade	
V		**Understanding the Indian Economy: Case Studies**	**12**
	17	Identify the factors contributing to the recent growth of the Indian economy and prepare a report	
	18	Make a report on agricultural revolutions in India	
	19	Make an industrial visit and identify the inputs, outputs, and production techniques	
	20	Prepare an assignment on India's exports, and imports with leading trading partners. (Encourage use of secondary data)	

Reading List

GHOSH, C., & GHOSH, A. (2016). INDIAN ECONOMY A MACRO-THEORETIC ANALYSIS.

PHI Learning Pvt. Ltd..

GHOSH, S. (2022). Indian economy. PHI Learning Pvt. Ltd..

Goyal, A. (2014). Handbook of the Indian Economy in the 21st Century:

Understanding the Inherent Dynamism. Oxford University Press.

Jose,T(2021), Indian Economy, Media Books.

Kapila, U. (Ed.). (2008). Indian Economy since independence. Academic Foundation Kapila, U. (Ed.). (2022). Indian Economy since independence. Academic Foundation Mishra, M. (2018). The Indian economy: a macroeconomic perspective.

Puri, V. K., & Misra, S. K. (2017). Indian economy.

Rangarajan Committee Report available at http://planningcommission.nic.in/reports/genrep/pov rep0707.pdf Tendulkar Committee Report available at http://planningcommission.gov.in/eg poverty.htm

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Develop alternative solutions to the issues of the Indian economy	R, U, Ap, An, E, C	PSO-2, 4
CO-2	Evaluate the prospects and problems of the agricultural sector	R, U, Ap, An, E	PSO-2, 4
CO-3	Analyze the role and challenges of the industrial and service sectors	R, U, Ap, An, E	PSO-2, 4
CO-4	Evaluate the significance of public policy and trade, and design appropriate frameworks	R, U, Ap, An, E, C	PSO-2, 4

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Develop alternative solutions to the issues of the Indian economy	PO-1,4 PSO-2,4	R, U, Ap, An, E, C	F	L	-

CO-2	Evaluate the prospects and problems of the agricultural sector	PO-1,2 PSO-2,4	R, U, Ap, An, E	F, M	L	-
CO-3	Analyze the role and challenges of the industrial and service sectors	PO-1, PO- 2, PSO-2,4	R, U, Ap, An, E	F, M	L	-
CO-4	Evaluate the significance of public policy and trade, and design appropriate frameworks	PO-1, PO-2, PO- 6, PSO-2,4	R, U, Ap, An, E, C	P, M	L	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Correlation Levels:

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	Average
CO1	-	3	-	3	1	2	3	2	-	2	-	2	2.25
CO2	-	3	-	3	-	2	3	3	1	-	-	2	2.43
CO3	-	3	-	3	1	2	3	3	2	-	-	2	2.375
CO4	-	3	-	3	1	3	3	3	3	1	1	3	2.4
Average	0	3	0	3	1	2.25	3	2.75	2	1.5	1	2.25	

Assessment Rubrics:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam

- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	-	✓
CO4	✓	✓	✓	✓

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1DSCECO104				
Course Title	REGIONAL ECONOMICS				
Type of Course	DSC				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites	Basic understanding of Economics				
Course Summary	The course offers a comprehensive examination of the economic dynamics shaping regional disparities and rural areas' development. Through a blend of theoretical frameworks and empirical analysis, students explore the factors influencing regional economic growth, such as natural resources, infrastructure, human capital, and institutional arrangements.				

Detailed Syllabus

Module	Unit	Content
I	Fundamental concepts of Regional Economics and Rural Economics	
	1	Introduction to Regional Economics
	2	Need, Nature and scope of regional economics
	3	Regional economics and regional science
	4	Regional and Rural Economics
	5	Concept and types of regions: Administrative, Planning, Agro-climatic, Economic and Functional regions
	6	Introduction to Rural Economics: Nature and Scope of Rural Economics
	7	Inter-disciplinary approach of Rural Economics: Components-Structure and Characteristics
II	Nature of Rural Demography, occupation, Poverty and Unemployment in India	
	8	Population Size - Sex and Age Composition- Density of Population - Population Problems and Challenges
	9	Family Welfare Measures - Occupational Distribution
	10	Poverty-Meaning, Estimates, Causes and Consequences
	11	Unemployment - Meaning, Types - Work Participation Rates - Magnitude - Causes and Consequences- In-Migration & Out-Migration
	12	Importance of infrastructure in Regional Development.
III	Approaches to Rural Development	
	13	Gandhian Approach
	14	Decentralized Planning Approach
	15	Sectoral Approach
	16	Rights Approach
	17	National Programmes for Rural Development, Community Development Programmes, and Employment Guarantee Schemes
IV	Concept, definition, and measurement of regional economic growth in India	
	18	Administrative regions in India: State, District, Taluk and Village; Urban and Rural regions
	19	Concept, definition, and measure of State Income (GSDP) – Rural and urban GDP
	20	Differences in the estimation of national income (GDP) and State Income (GSDP)
	21	Measurement of inter-regional economic growth at State level
	22	Measurement of intra-state disparities in Kerala
V	FIELD SURVEY	
	23	Conduct analysis based on secondary data
		Examples:
		Regional disparity in poverty and inequality at State level
		Trends in poverty and inequality in Kerala
		Conduct a field survey

		Examples:
		The Role of SHGs in Promoting Women's Empowerment in Rural Kerala
		Public Policy and Poverty Eradication: A Study of Employment Guarantee Programmes

Basic Readings

1. Katar Singh and Anil Shishodia. Rural Development –Principles, Policies and Management, Atlantic Publishers and Distributors
2. Maheswari S. (1985) Rural Development in India, - A Public Policy Approach, Sage Publication, New Delhi.
3. Mukundan,N.-Rural Development and Poverty eradication in India. New Century Publications
4. Satyasundaram (1997), Rural Development, Himalaya Publishing House, New Delhi.
5. V. M. Dandekar and N. Rath (2008). Poverty in India. Books for Change
6. Vasant Desai: Rural Development in India, Himalaya Publishing House, Mumbai, 2012.

Additional Readings

1. Bhattacharya and S. Sakthivel (2004): Regional Growth and Disparity in India: Comparison of Pre- and Post-Reform Decades, Economic and Political Weekly, 39(10), pp. 1071-1077.
2. Edgar M. Hoover and Frank Giarratani. (2016). An Introduction to Regional Economics. Web-book of Regional Science, Regional Research Institute, West Virginia University. Freely downloadable at: http://www.rri.wvu.edu/WebBook/Giarratani/contents.htm
3. Capello Roberta. (2016). Regional Economics. Routledge (New York).
4. Dutt and Sundaram- Indian Economy, S.Chand Publications, New Delhi, 2013-07-02.
5. Edgar M. Hoover and Frank Giarratani. (2016). An Introduction to Regional Economics. Web-book of Regional Science, Regional Research Institute, West Virginia University. Freely downloadable at: http://www.rri.wvu.edu/WebBook/Giarratani/contents.htm
6. Hudson, R. (2007): Regions and Regional Uneven Development Forever? Some reflective Comments upon Theory and Practice, Regional Studies, 41(9), pp. 1149-1160.
7. Keshab Das (2004): Uneven Development and Regionalism: A Critique of Received Theories, Economic and Political Weekly, 39(45), pp. 4917-4925.
8. Lekhi R.K. (2005) The economics of Development and Planning.
9. MacKay, R. (2003): Twenty-Five Years of Regional Development, Regional Studies, 37(3), pp. 303-17.
10. Rahul Mudgal (1996) Economic Dimensions of Rural Development, Sarup& Sons, New Delhi.

Course Outcomes

CO No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Identify the situations to use the concepts of Regional Economics	R, U, Ap, An, E, C	PSO-1
CO-2	Examine the Nature of Rural Demography, occupation, Poverty and Unemployment	R, U, Ap, An, E, C	PSO-2, PSO-3
CO-3	Evaluate the impact of Approaches to Regional Development	R, U, Ap, An, E	PSO-2
CO-4	Create a conceptual framework to solve the regional issues of an economy	R, U, Ap, An, E, C	PSO-1,2

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create
Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO -1	Identify the situations to use the concepts of Regional Economics	PO-1, PSO-1	R, U, Ap, An, E, C	C,F	L	-
CO -2	Examine the Nature of Rural Demography, occupation,	PO-2,PSO-2, PSO-3	R, U, Ap, An, E, C	P, M	L	-
CO -3	Evaluate the impact of Approaches to Regional Development	PO-7, PSO-2	R, U, Ap, An, E	P	L	-
CO -4	Create a conceptual framework to solve the regional issues of an economy	PO-1, PO-2, PO-7, PSO-1, PSO-2	R, U, Ap, An, E, C	P, M	L	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	Average
CO1	3	2	-	1	-	-	3	2	-	1	-	2	2	-	2
CO2	-	3	3	1	-	-	2	3	1	-	-	2	1	-	2
CO3	1	3	-	-	-	-	1	1	2	-	-	2	3	1	1.75
CO4	3	3	1	2	1	2	3	3	2	2	1	3	2	2	2.14
Average	2.33	2.75	2	1.33	1	2	2.25	2.25	1.67	1.5	1	2.25	2	1.5	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments Final Exam

Mapping of COs to Assessment Rubrics :

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	✓	✓
CO4	✓	✓	✓	✓

University of Kerala

<table>
<tr><td>Discipline</td><td colspan="5">ECONOMICS</td></tr>
<tr><td>Course Code</td><td colspan="5">UK1DSCECO105</td></tr>
<tr><td>Course Title</td><td colspan="5">AGRICULTURAL ECONOMICS</td></tr>
<tr><td>Type of Course</td><td colspan="5">DSC</td></tr>
<tr><td>Semester</td><td colspan="5">1</td></tr>
<tr><td>Academic Level</td><td colspan="5">100 – 199</td></tr>
<tr><td rowspan="2">Course Details</td><td>Credit</td><td>Lecture per week</td><td>Tutorial per week</td><td>Practical per week</td><td>Total Hours/Week</td></tr>
<tr><td>4</td><td>4 hours</td><td>-</td><td>-</td><td>4</td></tr>
<tr><td>Pre-requisites</td><td colspan="5">Basic understanding of Economics</td></tr>
<tr><td>Course Summary</td><td colspan="5">The course covers the foundational principles, theories, and practices focusing on the linkages between agriculture and economy, production management, and agriculture marketing.</td></tr>
</table>

Detailed Syllabus:

Module	Unit	Content	Hrs
I		**Introduction**	**10**
	1	Definition and scope of Agricultural Economics.	
	2	Role of agriculture in economic development; interdependence between agriculture and industry.	
	3	Modernization in agriculture, organic farming, smart agriculture	
	4	Agricultural growth and poverty	
II		**Economics of Agricultural Production and Farm Management**	**15**
	5	Agricultural production-Production Function analysis- types of costs and their interrelationship.	
	6	Economics of Farm Management, Principles of Farm Management, Budgeting.	
	7	Farm size and productivity relation.	
III		**Land Systems and Agricultural Finance**	**15**
	8	Principles of land utilization – land distribution – structure and trends.	
	9	Land tenures and farming systems – peasant, capitalist, collective, and state farming. Tenancy and crop sharing	
	10	Issues of marginal and small farmers, rural unemployment, Agricultural wages	
	11	Sources of rural credit, Agricultural credit challenges, opportunities, and strategies.	
IV		**Agricultural Prices, Marketing, and Trade**	**10**
	12	Agricultural prices and policy- Meaning and objectives of agricultural price policy- administered prices.MSP, need for an agricultural price policy - Food security, Public Distribution system.	
	13	Market Structure, marketing mix, and market segmentation -Classification and characteristics of agricultural markets. Role of IT –Market research – Market information service – electronic auctions (e-bay), Domestic and Export Market Intelligence Cell (DEMIC) – Market extension.	
	14	Risk in marketing, Types of risk in marketing, speculation & hedging, futures trading.	
	15	International trade in Agri commodities: WTO, and Agreement on Agriculture (AoA).	
V		**Analysis and Application**	**10**
	16	Analysis of Indian agriculture-land reforms-green revolution-agricultural prices, international trade and its implications-trends in agricultural production.	

Reading List

1. Schultz, Theodore.W,(1964), Transforming traditional agriculture, Yale City Press, New Haven.

2. Das Gupta, (1977): The New Agrarian Technology and India, Macmillan, New Delhi.

3. Subrata Ghatak and Ingersent,Ken, (1984): Agriculture and Economic Development; Harvester Press, Sussex.

4. Uma Kapila,(2023): Indian Economy Since Independence, 34th edn, Academic Foundation, Delhi.

5. Earl.O.Heady, (1952): Economics of Agricultural Production and Resource use; Prentice Hall, New York.

6. C.H. Hanumantha Rao, (1994): Agricultural Growth, Rural Poverty and Environmental Degradation, Oxford University Press, New Delhi.

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Develop appropriate strategies for agricultural marketing	R, U, Ap, An, E, C	PSO-1
CO-2	Apply economic analysis techniques to farm management decisions.	R, U, Ap, An, E, C	PSO-2 PSO-3
CO—3	Gain insight into agricultural markets and marketing	R, U, Ap, An	PSO-2,3
CO-4	Develop critical thinking skills to analyze and evaluate agricultural economic issues.	R, U, Ap, An, E, C	PSO-3,4

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial:Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Develop appropriate strategies for agricultural marketing	PO-1,2 PSO-1	R, U, Ap, An, E, C	F, C	L	
CO-2	Apply economic analysis techniques to farm management decisions.	PO-1,2 PSO-1,2	Ap, An ,C	P, M	L	
CO-3	Gain insight into agricultural markets and marketing	PO-1, 2 PSO-1,2	R, U, Ap, An	P, M	L	
CO-4	Develop critical thinking skills to analyze and evaluate agricultural economic issues.	PO-1,2,3 PSO-1 PSO-2	R, U, Ap, An, E, C	P, M	L	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	Average

CO1	3	2	-	-	-	-	3	3	1	1	-	2	2.14
CO2	3	3	1	-	-	-	3	3	1	-	-	2	2.29
CO3	3	3	2	-	-	-	3	2	-	1	-	1	2.14
CO4	3	3	2	-	-	1	3	3	3	2	1	3	2.4
Average	3	2.75	1.67	0	0	1	3	2.75	1.67	1.33	1	2	

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Correlation Levels:

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	-	✓
CO3	✓	✓	-	✓
CO4	✓	✓	✓	✓

Multi-disciplinary Course (MDC)

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1MDCECO100				
Course Title	ECONOMICS FOR EVERYONE				
Type of Course	MDC				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre- requisites	A keen interest in knowing about the basic concepts relating to Economics				
Course Summary	This course aims to equip students to understand current economic issues and illustrate how economic concepts can be applied to analyze real-life situations.				

Detailed Syllabus:

Module	Unit	Introduction to Economics		Hrs
	1	Subject matter of Economics-Need & Scope of Studying Economics-Branches of Economics		
	2	Fundamental Economic Activities: Production, Consumption, and Exchange -Trade Agents in an Economy; Producer, Consumer, Government- Factors of Production.		10
	3	Basic Problems of an Economy		
	4	Role of government in an economy- economic systems		
II		Macroeconomic Concepts, Issues and Policies		12
	5	National Income: GDP, GNP, NNP, NDP, and GVA; at current price and constant price, Green Accounting		
	6	Inflation; Types, Causes, and Effects- Deflation-Stagflation.		
	7 8	Inflation Indices: WPI and CPI Policy Measures: Fiscal and Monetary Policy -Repo & Reverse Repo Rates in India		
	9	Phases of Business Cycles		
III		Socio-Economic Issues in India		10
	10	Poverty- Relative & Absolute –Estimation: poverty line, MDPI; Alleviation Programs - DAY-NRLM and AAY		
	11	Economic Inequality – Gini Coefficient, Lorenz Curve		
	12	Unemployment – types - WPR, LFPR - Alleviation Programs -MGNREGA & Skill India Mission (Vision and Mission)		
IV		Banking and Capital Market in India		8
	13	Types of Banks – Central Bank, Commercial Banks – Public Sector Banks (PSBs), Private Sector Banks, Foreign Banks, and Regional Rural Banks (RRBs)		
	14	E-Banking- Digital Currency.		
	15	Capital Market- Components; Instruments; and Trading		
	16	Stock Exchanges – Meaning and functions – BSE and NSE;		
	17	SEBI- Functions		
V		Activity		5
	18	Prepare a report on the basic issues faced by the Indian Economy		
	19	Evaluate the major Poverty Alleviation Programmes in India		
	20	Prepare an assignment on RBI's Inflation Targeting Policy in India		

Reading List

- Stephen Dobson and Susan Palfreman (1999): "Introduction to Economics", Oxford University Press.
- Nilanjan Banik, "The Indian Economy: A Macroeconomic Perspective", Sage Publications
- New monetary Aggregates: RBI https://www.rbi.org.in/scripts/publicationReportDetails.aspx?ID
- Chetan Ghate, The Oxford Handbook of Indian Economy", Oxford University Press
- Mihir Rakshit (2011): Inflation and Relative Prices in India 2006-10: Some Analytical and Policy Issues, Economic & Political Weekly EPW ,April 16, 2011, vol xlvi no 16
- Faboozi, J Frank, Modigliani Franco (2008): Capital Markets-Institution and Instruments. 4th ed, Pearson Education, New Delhi
- F.S Mishkin and S.G. Eakins (2011): Financial Markets and Institutions, Pearson Education,3rd Ed
- David Begg, Gianluigi Vernasca, Stanley Fischer, and Rudiger Dornbusch Economics 12th Edition, McGraw Hill.

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the working of a modern market economy	R, U	PSO-1
CO-2	Examine the macroeconomic policies and their implications.	R, U, Ap, An, E, C	PSO-2,4
CO-3	Analyze the socio-economic issues in the Indian Economy and develop innovative solutions.	R, U, Ap, An, E, C	PSO- 3,4
CO-4	Apply essential financial skills in real-life investment decisions.	R, U, Ap, An, E, C	PSO-4

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create
Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)

CO-1	Understand the working of a modern market economy	PO-, 1 PSO-2,4	R, U	C,F	L	-
CO-2	Examine the macroeconomic policies and their implications.	PO-,1,2 PSO-3,4	R, U, Ap, An, E, C	C, F	L	-
CO-3	Analyze the socio-economic issues in the Indian Economy and develop innovative solutions.	PO-1,2 PSO-4,	R, U, Ap, An, E, C	F,M	L	-
CO-4	Apply essential financial skills in real-life investment decisions.	PO- 1,6 PSO-4	R, U, Ap, An, E, C	F, M	L	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs: Correlation Levels:

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	Average
CO1	-	3	-	2	-	-	3	2	-	1	-	1	-	-	2
CO2	-	-	3	3	1	-	3	3	-	-	-	2	-	-	2.5
CO3	-	2	-	3	2	1	3	3	2	-	1	2	1	2	2
CO4	-	2	-	3	1	1	3	2	-	-	-	3	1	-	2
Average	0	2.33	3	2.75	1.33	1	3	2.5	2	1	1	2	1	2	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium

3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	✓	✓
CO3	✓	✓	✓	✓
CO4	✓	✓	-	✓

University of Kerala

Discipline	ECONOMICS				
Course Code	UK1MDCECO101				
Course Title	SUSTAINABLE DEVELOPMENT				
Type of Course	MDC				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	Understanding of basic principles of Economics				
Course Summary	Typically covers a broad range of topics aimed at understanding the interplay between environmental, social, and economic factors to promote long-term well-being and prosperity for current and future generations.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I		**Sustainable Development- An Overview**	**12**
	1	Sustainable Development: Definitions, Objectives and Principles	
	2	Indicators of sustainable development	
	3	Approaches and Strategies for Sustainable Development; MDG to SDGs – criticism; Degrowth, slowing, overheating *(Concept Only)* - Mickey mouse economics to Doughnut economics *(Concept Only)*	
II		**Sustainable Development Goals**	**10**
	5	Sustainable Development Policies and Programmes: The proposal for SDGs at Rio+20; Illustrative SDGs; Goals, Targets and Indicators	
	6	Government and the SDGs: Planning, localising the SDGs *(need for localisation and incorporating community participation like SHGs),* Policy instruments *(Regulatory, Institutional, Economic, Informational instruments for SDG implementation).*	
	7	Industrial policies and the SDGs- Financing the SDGs; Types of financing, new financing mechanisms, and global funds, Goal-based Development. Principles of Good Governance *(brief idea of principles like participation, transparency, accountability etc.)*	
III		**SDG-Issues and challenges**	**8**
	8	Issues and threats in the attainment of SDGs: Climate Change and sustainability, demographic imbalances, income inequality, jobless growth, loss of biodiversity	
	9	Global and National Level Initiatives for Sustainable Development (Examples)	
	10	Measurement of Sustainable Development – National Income Accounting *(Definition of National Income, GDP and GNP, the need for environmental element in NI accounting)* and Green GDP *(Definition, Challenges and examples of green GDP)*	
IV		**SDG for the future**	**6**
	11	Agenda for Future Global Sustainable Development: Role of developed countries in the sustainable development of developing countries, Demographic dynamics and sustainability *(population growth, urbanization, migration and role in sustainable development briefly),* Integrated approach for resource protection and management *(mention some practical examples like water management, urbanization and infrastructure development)*	

<table>
<tr><td rowspan="2">V</td><td colspan="2">Outreach activities designed by the Tutor</td><td rowspan="2">9</td></tr>
<tr><td>12</td><td>Guideline for visit and reporting
(i) visit to a local recycling centre, or (ii) assess the wisdom of the local community through group visits</td></tr>
</table>

Reading list

1. Peter P. Rogers and Malin Falkenmark (2007), The Sustainable Development Goals: A Blueprint for Sustainability in the 21st Century, earthscan from Routledge.
2. Editors Okechukwu Ukaga, Chris Maser et al, (2019), Sustainable Development: Principles, Frameworks, and Case Studies (Social-Environmental Sustainability), CRC Press.
3. Transforming our World: The 2030 Agenda for Sustainable Development available at https://sustainabledevelopment.un.org/post2015/transformingourworld/publication
4. "The Future We Want: Radical Ideas for the New Century" edited by Sarah Leonard and Bhaskar Sunkara:
5. "The Sustainable Development Goals: An Interdisciplinary Perspective" edited by William M.
   Lafferty and James Meadowcroft:
6. "Localizing the Sustainable Development Goals: From Agenda 2030 to Urban Action" edited by David Simon and Michele Acuto.
7. Joseph Stiglitz, Amartya Sen, & Jean Paul Fitoussi(2009), The Measurement of Economic Performance and social progress revisited: Reflections and Overview, https://www.ofce.sciences-po.fr/pdf/dtravail/WP2009-33.pdf
8. Jonathan M. Harris and Brian Roach (2017): Environmental and Natural resource Economics:
   A Contemporary Approach, 4th Edition, Routledge.
9. Development, Poverty, and the Environment (T), Chapter 20 & FAO's,Global Information & Early Warning System at http://www.fao.org/giews/english/index.

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand Sustainable Development Goals and related concepts	R, U	PSO-1
CO-2	Recall key concepts and evaluate ethical, cultural, and global issues to create appropriate responses.	R, U, Ap, An, E, C	PSO-6,3

CO-3	Apply critical thinking skills to real-world contexts and evaluate solutions to sustainability challenges.	R, U, Ap, An, E, C	PSO-1,4
CO-4	Apply and analyse sustainable practices to create effective, practical solutions for real-world challenges.	R, U, Ap, An, E, C	PSO-6,5
CO-5	Assess the wisdom of the local community through group visits	R, U, Ap, An, E, C	PSO-6

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand Sustainable Development Goals and related concepts	PO-1, PSO-1	R, U	C	L	-
CO-2	Recall key concepts and evaluate ethical, cultural, and global issues to create appropriate responses.	PO-2,3 PSO-3,6,	R, U, Ap, An, E, C	F, C	L	-
CO-3	Apply critical thinking skills to real-world contexts and evaluate solutions to sustainability challenges.	PO-1,5 PSO-1,4	R, U, Ap, An, E, C	F, C	L	-
CO-4	Apply and analyse sustainable practices to create effective, practical solutions for real-world challenges.	PO-3 PSO-6,5	R, U, Ap, An, E, C	P, M	L	-
CO-5	Assess the wisdom of the local community through group visits	PO-2 PSO-6	R, U, Ap, An, E, C	C, P	L/T	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

CO No.	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	Average

CO1	3	-	1	1	-	-	3	2	-	1	-	2	-	3	2
CO2	-	-	2	2	1	2	2	2	3	1	-	1	2	3	1.91
CO3	3	-	1	3	1	2	3	2	2	-	1	2	2	2	2
CO4	2	-	-	3	3	2	2	2	3	1	1	3	2	2	2.17
CO5	-	-	-	1	2	3	1	3	1	-	-	2	2	3	2
Average	2.67	0	1.33	2	1.75	2.25	2.2	2.2	2.25	1	1	2	2	2.6	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

CO No.	Internal Exam	Assignment	Project Evaluation	End Semester Exam
CO1	✓	✓	-	✓
CO2	✓	✓	✓	✓
CO3	✓	✓	✓	✓
CO4	✓	✓	✓	✓
CO5	-	✓	✓	-