

Semester	V
Paper Number	HECDS5021T
Paper Title	INPUT-OUTPUT ANALYSIS
No. of Credits	6
Theory/Composite	Theory
No. of periods assigned	5 Theory + 1 Tutorial
Course description/objective	The objective of this course is to familiarize students with the concept of inter-industry analysis and the resulting insights that are gained into various areas of economics, such as national income accounts, price and quantity system equilibrium, impact analysis and multipliers, duality theory, decomposition of sources of various changes in the economy, policy analysis using mixed models, and to introduce students to the multifarious areas of extensions of Input-Output Analysis such as environment and ecology, regional science, productivity and social accounting. It is expected that students with exposure to this course will be trained in the basic skills of handling various economy-wide issues.
Syllabus	<p><b>Module 1 (30 marks)</b></p> <p><b>1. Introduction and overview</b> Introduction to Input-Output Analysis, Basic framework of Input-Output Analysis, Outline of various major areas of application.</p> <p><b>2. Fundamental concepts</b> Fundamental relationships with National Income accounts and Production Functions, Leontief Inverse, Impact analysis, Power series approximation of Leontief Inverse, Open and Closed Models, Price Model.</p> <p><b>Number of Classes per week: 2</b></p> <hr/> <p><b>Module 2 (50 marks)</b></p> <p><b>3. Multipliers</b> Output Multipliers, Income and Employment Multipliers, Value-added Multipliers, Multipliers and Elasticities.</p> <p><b>4. Supply-side Models and Linkages</b> The Ghosh Model, Re-interpretation of Ghosh model as price model, Linkage analysis, Hypothetical Extraction analysis.</p> <p><b>5. Structural Decomposition and Mixed Models</b> Demand-side decomposition, Sources of change, Mixed Models, New-industry Impacts.</p> <p><b>6. Applications</b> Basic idea of Energy Input-Output Analysis, Environmental Input-Output Analysis, Regional Input-Output Analysis, Social Accounting Matrices, Total Factor Productivity Analysis.</p>

	<b>Number of Classes per week: 3</b>			
	<b>Tutorial Classes per week: 1</b>			
Reading	<p>1. Ronald E. Miller and Peter D. Blair, <i>Input-Output Analysis – Foundations and Extensions</i>, Second Edition, Cambridge University Press, 2009.</p> <p>2. Thijs ten Raa, <i>The Economics of Input-Output Analysis</i>, Cambridge University Press, 2005.</p> <p>3. “Economic Systems Research” – various issues.</p>			
Evaluation	<p>Continuous Internal Assessment: 20 marks</p> <p>End- Semester Theory Examination: 80 marks</p>			
Paper Structure for End Sem Theory	Module	No. of Questions to be Answered	No. of Alternatives	Marks
	Module 1	2	3	5 x 2 = 10
		2	3	10 x 2 = 20
	Module 2	4	5	5 x 4 = 20
		3	4	10 x 3 = 30
	Total Marks			80