

Course title: Economics of Infrastructure and Pricing Strategies				
Course code: BSI 124	No. of credits: 2	L-T-P distribution: 19-9-0	Learning hours: 28	
Pre-requisite course code and title (if any):				
Department: Department of Business Sustainability				
Course coordinator (s): Dr. Montu Bose			Course instructor (s): Dr. Montu Bose	
Contact details: montu.bose@teriuniversity.ac.in				
Course type	Core	Course offered in: Semester 2		
Course description				
Infrastructure is an important component of a modern economy. However, infrastructure problems were not the primary focus of policy when the economic reform began in 1991. At the end of 1992, the first articulation of a planning for infrastructure development had been found as part of the reform programme in the Eighth Five Year Plan. After the implementation of the economic reform, every aspects of the economy have undergone a dramatic change in India. Private sector stepped up as an important player in infrastructure development and the government plays the role of the regulating authority. In this backdrop, the course has been developed as a fundamental course to introduce the Economics of Infrastructure and the Pricing Strategies.				
Course objectives				
The course is intended to develop the conceptual foundation of production and costs related to infrastructure development and the role of investment in developing infrastructure along with the associated problems. It would also prepare students to address strategic and tactical pricing issues and to develop a sustainable infrastructure project.				
Course content				
Module	Topic	L	T	P
1	Basic Economic Ideas and Resource Allocation	2	1	0
2	Theory of Production	2	0	0
3	Theory of Costs	2	1	0
4	Investment in Infrastructure and Cost	6	2	0
5	Pricing, Tariff Forecasting and Fixation	7	5	0
	Total	19	9	0
Evaluation criteria				
The grading will be based on the students' participation in the class-discussion, presentation accompanied by submission of a term paper/report and a major exam at the end of the course –				
<ul style="list-style-type: none"> • Class Participation/Quiz: 15% • Short Assignment(s): 20% • Term Paper and Presentation: 20% • Case Write-up: 20% • Major Exam: 25% • 				
Learning outcomes				
After successful completion of the course, students will be able to –				
<ul style="list-style-type: none"> • Interpret the basic problems of an economy and situate the importance of infrastructure development in the context • Explain the concept of production and costs • Describe the role of investment in infrastructure development • Explain the role of costs in infrastructure development • Analyse the pricing strategies for infrastructure projects 				

- Describe the role of government in developing infrastructure
- Explain the effect of new economic policy on infrastructure development

Pedagogical approach

A combination of class-room interactions and assignments with special emphasis on case studies and real life examples.

Detailed Break-up of the Topics:

1. Basic Economic Ideas and Resource Allocation

- Normative and Positive Economics
- Wants, Scarcity, Competing Ends and Choice – Defining Economics
- Principles of Microeconomics – Individual Decision Making and Economic Interaction
- Role of Government – Provider and/or Regulator, Comparison of pre and post-reform regime.
- Concept of Public good and market failure

Suggested Readings:

Lipsey (Sixth Ed.) Ch.1 & Ch.4; Pindyck & Rubinfeld (5th Ed.) Ch.1 & Ch.2

Kaur & Ghuman (2009): Infrastructure Development in India, Available at:

<http://upet.ro/annals/economics/pdf/2009/20090402.pdf>

Ahluwalia M.S.: Infrastructure Development in India's Reforms. Available at:

<http://planningcommission.gov.in/aboutus/speech/spemsa/new/msa29.pdf>

Sharma R.K. (2014): Industrial Development in India in Pre and Post reform period. Available at:

<http://iosrjournals.org/iosr-jhss/papers/Vol19-issue10/Version-4/A0191040107.pdf>

2. Theory of Production

- Production Function for a Single Product
- Laws of Production
- Technological Progress & Production
- Case Studies on Technological Progress
- Equilibrium of the Firm
- Production Function of a Multiproduct Firm – Production Possibility Frontier, Iso-revenue Curve and Equilibrium

Suggested Readings:

Pindyck & Rubinfeld (5th Ed.) Ch.6; Besanko and Braeutigam (4th Ed.) Ch.7

3. Theory of Costs

- General Concepts of Costs
- Role of Cost for Decision Making
- The 'Mark-to-Market' Controversy during Financial Crisis of 2008
- Different Types of Costs – Economic Cost, Accounting Cost, Sunk Cost, Short-run Costs, Long-run Costs: The Envelop Curve
- Analysis of Economies of Scale
- Empirical Evidences on the Shape of Costs & its Relevance
- The Cost Minimization Problem
- Case Studies on Infrastructure Related Costs – Urban Transit System, Higher Education, Railway

etc.

Suggested Readings:

Pindyck & Rubinfeld (5th Ed.) Ch.7; Besanko and Braeutigam (4th Ed.) Ch.7

4. Investment in Infrastructure and Cost

- Why Investment in Infrastructure is Important?
- Role of Costs in Investment
- Liberalization, Privatization and Globalization – Impacts on Investment
- How to finance Infrastructure Investment
- The Role of Government – Setting the Policy Framework
- Private Participation in Infrastructure Market
- Case studies on Environmental Concern and Infrastructure Development (like Investing in Low-Carbon Infrastructure etc.)

Suggested Readings:

Pindyck & Rubinfeld (5th Ed.) Ch.15

Helm D. (2009): Infrastructure Investment, the cost of capital, and regulation: an assessment, Available at: <http://oxrep.oxfordjournals.org/content/25/3/307.full.pdf+html>

ASIC: Investing in Infrastructure? Available at: <https://www.moneysmart.gov.au/media/340324/investing-in-infrastructure.pdf>

OECD (2015): Fostering Investment in Infrastructure, Available at:

<https://www.oecd.org/daf/inv/investment-policy/Fostering-Investment-in-Infrastructure.pdf>

Infrastructure Investing: Key benefits and Risks, Available at:

<https://www.jpmorgan.com/jpmpdf/1158630194855.pdf>

Berg (2009): Investing in Infrastructure: Factors affecting Sector Performance, Available at.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.581.3617&rep=rep1&type=pdf>

5. Pricing, Tariff Forecasting and Fixation

- Concept of Pricing, Pricing Strategies
- Price Sensitivity and Consumer Psychology
- Concept of Tariff Forecasting & Fixation
- Methods of Tariff Designing
- Changing Role of Government – Regulation and Price Setting in Infrastructure Market
- Case Studies of Tariff Forecasting
- Concepts and Method of Tariff Fixation
- Case Studies on Tariff Fixation

Suggested Readings:

Couture, Cory et.al. (2010): A Policymaker's Guide to Feed-in Tariff Policy Design. Available at:

<http://www.nrel.gov/docs/fy10osti/44849.pdf>

Tariff Fixation in India, Available at: <http://icmai.in/Knowledge-Bank/upload/case-study/2014/Tariff-fixation.pdf>

Nallathiga R. User Charge Pricing for Municipal Services, Available at:

https://www.cgg.gov.in/workingpapers/User_charge_levy_paper.pdf

Pagano (2011): Funding and Investing in Infrastructure, Available at:

<http://www.urban.org/sites/default/files/alfresco/publication-pdfs/412481-Funding-and-Investing-in-Infrastructure.PDF>

Pricing and Financing, Available at: <http://www.fao.org/docrep/w5973e/w5973e0d.htm>

Ahluwalia and Bhatiani (2000): Tariff Setting in the Electric Power Sector, Available at: <http://www.teriin.org/upfiles/pub/papers/ft15.pdf>
Body of Knowledge on Infrastructure Regulation: <http://regulationbodyofknowledge.org/tariff-design/economics-of-tariff-design/ramsey-pricing/>
Pricing Principles & Tariff Structures, Available at: <http://www.qca.org.au/getattachment/c5aced53-f67b-47e8-9930-43d7a7c82ee1/PricewaterhouseCoopers-Tariff-Structure-%E2%80%93-Pricing.aspx>
Rastogi A. (2005): The Infrastructure Sector in India, Available at: <http://www.iitk.ac.in/3inetwork/html/reports/IIR2006/The%20Infra.pdf>

References:

Lipsey R.G. (6th Ed): Principles of Economics, OUP.
Pindyck R.S. & Rubinfeld D.L. (5th Ed.): Microeconomics, Pearson.
Besanko D. & Braeutigam R.R. (4th Ed.): Microeconomics, Wiley.

Additional information (if any)

Student responsibilities

Course reviewers:

Dr. Ananya Ghosh Dastidar,
University of Delhi, Delhi

Dr. Sabitri Dutta
Ambedkar University, Delhi.

Dr. Debashis Chakraborty,
IIFT, Delhi

Dr. Soumendu Sarkar,
TERI University, New Delhi.