Course code: IE 524
Course title: Economic Regulation
No of credits: 4
No. of lecture hours: 56 hours (approximately)
Type of course: Optional for MA (Economics)
Course scheduling: Monsoon Semester, II Year, III Semester
Course evaluation: Mid-semester exam: 35%; End-semester exam: 40%; Term paper/ presentation: 25%.
Course instructor: Professor Meeta Keswani Mehra

Course overview
The course introduces students to regulatory environment and institutions, including rationale for economic regulation, regulatory instruments and incentive schemes, and an overview of the regulatory processes. It covers the traditional theories of regulation of natural monopolies under full information. This is followed up with new incentive-based approaches to regulation under asymmetric information. Pricing in a competitive environment, access pricing, dynamic regulation and politics of regulation are additional topics covered by the course.

Learning objectives
- To understand why do some industries require economic regulation and not others.
- To critically analyze the regulator's objectives, especially the case for competition for the market instead of or alongside regulation.
- To understand what economic theory tells us as the best way to regulate a natural monopoly or design incentive contracts, especially in the face of asymmetry of information between the regulator and the firm and potential for regulatory capture.
- To develop the knowledge of how regulation works in practice and how has it evolved over time.

Learning outcomes
- To develop knowledge and understanding of different theories of economic regulation.
- To build expertise of use of economic tools and examples as to why some industries are regulated and not others.
- To develop understanding methods to evaluate in a balanced manner different forms of economic regulation, taking account of regulatory objectives and available information.
- To evolve skills to investigate and analyze the rationale for and evolution of regulation in one utility and other infrastructure sectors.
- To develop expertise in critically evaluating the case for privatizing a firm or industry, taking account of economic literature and examples.
- To build knowledge and understanding of different methods of regulation using price controls, incentive contracts and non-price methods of regulation to deal with the problems of asymmetry of information and regulatory capture.
- To develop the ability to analyze economic issues relating to the regulation of industry, especially natural monopolies in electricity utilities, telecommunications, other infrastructure.
- To develop ability to work effectively with others, in peer discussions and on case study projects.

- To further developed skills in written communication and presentation.

Course modules

1. **Introduction to Economics of Regulation:** Rationale for economic regulation, common regulatory instruments and incentive schemes, and overview of regulatory processes.
   Kahn, A. (1988). The Economics of Regulation, Chapter 1
   Viscusi, K, Vernon, J. and Harrington, J. (1992). Economics of Regulation and Antitrust, Chapters 1 and 10.

2. **Theory and Regulation of Natural Monopoly:** Conventional theory of regulation covering optimal policies for natural monopolies, problems of natural monopoly and policy solutions.
   Viscusi, K, Vernon, J. and Harrington, J. (1992). Economics of Regulation and Antitrust: Chapters 11 and 12.
   Laffont, J-J. and Tirole, J. (1993). A Theory of Incentives in Procurement and Regulation. Introduction.

3. **Rate of Return Regulation:** Regulating rate of return on capital (Averch-Johnson model and its critique and extensions by Baumol and Klevorick)
   Averch, H. and Johnson, L. (1962) Behaviour of the Firms under Regulatory Constraint, American Economic Review, 52, 1052-1069.
   Baumol, W.J. and Klevorick, A.K. (1970). Input Choices and Rate-of-Return Regulation, Bell Journal of Economics and Management Science, 1, pp. 162-90.

4. **Optimal Regulation under Asymmetric Information**: Pricing and incentives for a single and multi-product firm when the effort levels and technology type of the firm are not known to the regulator. Theory of yardstick competition.
   Laffont, J-J. and Tirole, J. (1993). A Theory of Incentives in Procurement and Regulation. Chapters 1-3.
   Baron, D and Myerson R. (1982). Regulating a Monopolist with Unknown Cost. Econometrica, 50: 911-930.
   Shleifer, A. (1985) "A Theory of Yardstick Competition", RAND Journal of Economics, 16: 319-327.

5. **Pricing and Competition:** Regulation under competition, access pricing and bypass (in the context of telecommunications and energy (power, gas) sectors
   Laffont, J-J. and Tirole, J. (1993). A Theory of Incentives in Procurement and Regulation. Parts of chapters 5 and 6.
   Laffont, J.-J. and Tirole, J. (1994) "Access pricing and competition", European Economic Review, 38: 1672-1710.
   Laffont, J.-J. and Tirole, J. (1996) "Creating competition through interconnection: theory and practice", Journal of Regulatory Economics, 10: 227-256.
   Armstrong, M., Doyle, C. and Vickers, J. (1996) "The access pricing problem: a synthesis", The Journal of Industrial Economics, 44: 131-150.
   Vickers, J. (1997) "Regulation, Competition, and the Structure of Prices", Oxford Review of Economic Policy, 13, Spring: 15-26.

6. **Dynamics of Regulation** (4 lectures, 6 hours). Ratchet effect in the two-type case.
   Laffont, J-J. and Tirole, J. (1993). A Theory of Incentives in Procurement and Regulation. Parts of Chapter 9.

7. **Politics of Regulation and Regulatory Capture** (4 lectures, 6 hours): Revisiting the capture theory, comparison of capture-free regulation and regulation with producer protection, multiple interest groups.
   Laffont, J-J. and Tirole, J. (1993). A Theory of Incentives in Procurement and Regulation. Parts of Chapter 11.

Additional readings

Becker, G. (1983) "A theory of competition among pressure groups for political influence", Quarterly Journal of Economics, 98: 371-400.
Braeutigam, R (1989). Optimal Policies for Natural Monopolies. In Schamalese, R. and Willing, R. (Eds). Handbook of Industrial Organization. Elsevier Science Publishers.
Gasmi, F., Laffont, J.-J. and Sharkey, W. (2000) "Competition, Universal Service and Telecommunications Policy in Developing Countries", mimeo
Joskow Paul L. (ed.) (2000), "Economic Regulation", Edward Elgar Publishers.
Kofman, F. and Lawarrée, J. (1996) "On the optimality of allowing collusion", Journal of Public Economics, 61: 383-407.
Laffont, J.-J. and Tirole, J. (1990) "The politics of Government Decision Making: Regulatory Institutions", Journal of Law, Economics and Organizations, 6: 1-31.
Laffont, J.-J. and Tirole, J. (1991) "The politics of Government Decision Making: A Theory of Regulatory Capture", Quarterly Journal of Economics, 106: 1089-1127.
Laffont, J.-J. and Tirole, J. (1999) Competition in Telecommunications, MIT Press.
Loeb, M. and Magat, W (1979) A Decentralized Method for Utility Regulation. The Journal of Law and Economics, 22: 399-404.
Peltzman, S. (1976) "Toward a more general theory of regulation", The Journal of Law and Economics, 19: 211-240.
Spulber David, "Regulation and Markets". MIT Press, 1988
Stigler, G. (1971) "The Theory of Economic Regulation", Bell Journal of Economics and Management Science, 2: 3-21.