

Course Code: DI702

Course Title: Special Field of Economic Research I

Type of course: Optional (Credit 4)

Intended for: PhD (Economics), CITD, SIS, JNU

Objectives: The objective of this course is to provide aspiring PhD students with sound theoretical foundation in special fields of Economics in which they intend to pursue their research. The course is organized around several modules and a PhD student will require to choose and complete one module, depending on her/his research interest. Brief outline of these modules, along with the recommended readings is provided below.

1. Topics in Development Microeconomics

The module is issue based and aims to equip students with theoretical and applied tools, to systematically analyze problems faced by developing countries. It will use economic theory to examine the nature of economic inequality and poverty at the individual and household levels. Illustrative topics include (i) Distribution within households with focus on gender bias, intra-household allocation, unitary and collective models of the household and (ii) Nutrition and health with focus on production function, efficiency wages, demand and intervention for health. Illustrative readings include: *H. Alderman, Pierre-Andre Chiappori, Lawrence Haddad, John Hoddinott, and Ravi Kanbur, Unitary versus Collective Models of the Household: Is It Time to Shift the Burden of Proof, The World Bank Research Observer, 10(1): 1-19, 1995; P. Dasgupta and D. Ray, "Inequality as a Determinant of Malnutrition and Unemployment: Theory", Economic Journal, 96, 1011-1034, 1986; and several other articles in leading Economic journals*

2. International Trade, Environment and Multilateral Institutions

This module focuses exclusively on the relationship between international trade and environment, and the multilateral governing institutions of this interface. It begins with traditional trade theory with environmental dimensions; the use of first-best environmental policy instruments and second-best trade instruments in such models. It then focuses on the competitiveness impact of environmental regulation on goods trade and factor movement; the use of environmental policy instruments for global environmental problems, trade-environment governance rules under the World Trade Organization; and finally the current emphasis on trade in virtual carbon, climate-friendly goods and technology, including clean energy. Illustrative readings include: *R. C. d'Arge, On the Economics of Transnational Environmental Externalities, in Edwin S. Mills ed. Economic Analysis of Environmental Problems, National Bureau of Economic Research, 1975; R. Pethig, (1976) Pollution, Welfare, and Environmental Policy in the Theory of Comparative Advantage, Journal of Environmental Economics and Management, 2: 160-169, 1976; E. Manderson, Edward and Richard Knellar, Environmental Regulations, Outward FDI and Heterogeneous Firms: Are Countries Used as Pollution Havens? Environmental and Resource Economics 51: 317-352, 2012; A. Sawhney and Matthew E. Kahn, Understanding cross-national trends in high-tech renewable power equipment exports to the United States, Energy Policy (46): 308-318, 2012*

3. Environmental Economics

Environmental problems are a manifestation of the failure of markets to price pollution due to the public goods nature of environmental goods and services, absence of property rights to clean air, water and other environmental resources. This module is designed to introduce students to key contemporary issues in environmental economics and will cover the underlying theory and techniques of applying economics to environmental issues. It will begin with analyzing the economic causes of environmental problems and then examine various regulatory measures and government policies to address environmental externalities. Illustrative readings include: *N. Hanley, J. F. Shogren and B. White, Environmental Economics in Theory and Practice, MacMillan 1997*; *W. J. Baumol and W. E. Oats, The Theory of Environmental Policy, Second Edition. Cambridge University Press, 1994*; *C. D. Kolstad, Environmental Economics, OUP, 2003*

4. Information Economics

Information economics is the study of situations in which different economic agents have access to different information. This module provides a formal analysis of the effect of asymmetric information on the efficiency properties of market outcomes, and the kind of institutions and patterns of behavior develop in response to informational asymmetries. It delves with designing of contracts to induce the revelation of private information. The course begins by developing game-theoretical tools required for analyzing situations of asymmetric information. It then studies some of the main themes in the field: principal-agent problems, risk sharing, moral hazard, adverse selection (signaling, screening), mechanism design. Finally, it studies applications of the theory developed to other applied fields in economics such as auctions, finance, environmental economics, etc. Illustrative readings include: *I. Macho-Stadler and J. D. Perez-Castrillo, An Introduction to the Economics of Information Incentives and Contracts, OUP, 2001*; *Mas Collé, Whinston and Green, Microeconomic Theory, OUP, 1995*; *J. Tirole, The Theory of Corporate Finance.*

5. Economic Regulation

This module 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. Illustrative readings include: *G. Becker, A theory of competition among pressure groups for political influence, Quarterly Journal of Economics, 98: 371-400, 1983*; *P. L. Joskow (ed.), Economic Regulation, Edward Elgar Publishers, 2000*; *A. Kahn, The Economics of Regulation, MIT Press, 1988*; *J. J. Laffont and J. Tirole, A Theory of Incentives in Procurement and Regulation, MIT Press, 1993*