

Indian Institute of Technology, Kanpur

Proposal for a New Course

1. **Course No:** ECO 731A
2. **Course Title:** Public Economics and Public Policy
3. **Per Week**
 - a. **Lectures:** 3 (L)
 - b. **Tutorial:** 0 (T)
 - c. **Laboratory:** 0 (P)
 - d. **Additional Hours:** 0 (A)
4. **Credits (3*L+2*T+P+A):** 9 credits
5. **Duration of Course:** Full Semester
6. **Proposing Department:** Department of Economic Sciences
Other Departments/IDPs which may be interested in the proposed course: N/A
7. **Proposing Instructor(s):** Faculty members of the Department of Economic Sciences
8. **Level of the course:** PG
9. **Course Description:**

This course provides an advanced exploration of the theoretical foundations of public economics, with an emphasis on understanding the fundamental trade-offs and welfare implications of government interventions in market outcomes. Major topics covered include static and dynamic optimal taxation, public goods, externalities, fiscal federalism, public debt, and dynamic public policy. Additionally, the course will analyze the role of politics in shaping economic policy decisions by governments. It also delves into the public finance system in India, with an emphasis on key policy measures such as the Fiscal Responsibility and Budget Management Act, and the Goods and Services Tax framework. While the primary focus will be on the rigorous mathematical examination of established theoretical frameworks in the literature, relevant empirical papers will also be covered to provide a comprehensive understanding of critical issues in public economics.

a. Objectives:

Upon completion of this course, students should be able to:

1. Demonstrate a deep understanding of the theoretical foundations of public economics and analyze the welfare implications of government interventions in market outcomes.
2. Apply theoretical models and empirical evidence to analyze key policy measures.
3. Develop the ability to read, understand, and critique peer-reviewed research articles in the field, and apply this knowledge to formulate original research.

b. Contents:

S. No.	Broad Title	Topics	No. of Lectures
1.	Static Optimal Taxation (<i>SOT</i>)	<p>Lecture 1 - optimal commodity taxation; many-person Ramsey tax rule</p> <p>Lecture 2 - production efficiency theorem</p> <p>Lecture 3 - non-linear income taxation</p>	3
2.	Public Goods (<i>PG</i>)	<p>Lecture 4 - neoclassical theory of public goods; Samuelson Condition; market failure; Lindahl equilibrium</p> <p>Lecture 5 - mechanism design and Vickery-Clarke-Groves mechanism, median voter theorem, public good provision with distortionary taxation; Laffer curve</p>	2
3.	Externalities (<i>E</i>)	<p>Lecture 6 - externalities and market failure; Pigouvian taxation; Coase Theorem</p> <p>Lecture 7 - price versus quantity regulation; tradeable permits; optimal commodity taxation with externalities</p>	2
4.	Dynamic Optimal Taxation (<i>DOT</i>)	<p>Lecture 8 - Ricardian Equivalence</p> <p>Lecture 9 - the tax-smoothing problem</p> <p>Lecture 10 - optimal capital taxation</p> <p>Lecture 11 - time-inconsistency in government policy; New Dynamic Public Finance</p>	4
5.	Optimal Transfer Programs (<i>OTP</i>)	<p>Lecture 12 - optimal design of cash and in-kind transfers</p> <p>Lecture 13 - transfers as insurance policy; Samaritan's Dilemma</p>	2
6.	Fiscal Federalism (<i>FF</i>)	<p>Lecture 14 - task assignment and Oates' decentralization theorem; inter-jurisdictional tax competition</p> <p>Lecture 15 - vertical fiscal imbalances; intergovernmental transfers in India</p>	2
7.	Revenue and Expenditure in India (<i>REI</i>)	<p>Lecture 16 - fiscal assignment; components of expenditure; tax devolution; role of the Finance Commission</p> <p>Lecture 17 - direct and indirect taxes; the Goods and Services Tax framework</p>	2
8.	Public Debt in India (<i>PDI</i>)	<p>Lecture 18 - deficit financing; inflation and debt dynamics</p> <p>Lecture 19 - fiscal rules; Fiscal Responsibility and Budget Management Act (2003)</p>	2
9.	Economics, Politics, and Policy Choice (<i>E&P</i>)	<p>Lecture 20 - Probabilistic Voting and income redistribution</p> <p>Lecture 21 - legislative bargaining</p> <p>Lecture 22 - electoral incentives and public good provision</p>	3
10.	Dynamic Public Policy (<i>DPP</i>)	<p>Lecture 23 - dynamic policy problems</p> <p>Lectures 24&25 - political economy of taxation, spending, and public debt</p>	3

c. **Pre-requisites:** None

d. **Short summary for including in the Courses of Study Booklet:**

This course delves into the theoretical foundations of public economics, covering topics such as static and dynamic optimal taxation, public goods, externalities, fiscal federalism, public debt, dynamic public policy, as well as the role of politics in shaping economic policy decisions. Key policy measures in the Indian public finance system, including the FRBM Act and the GST framework, will also be covered. Through a rigorous exploration of these topics using mathematical methods and relevant empirical papers, the course offers a comprehensive introduction to critical issues in public economics.

10. Recommended Books:

Detailed lecture notes will be provided. The course will cover seminal peer-reviewed journal articles in the field; a partial selection is listed below (**bold-italicized** letters at the end of each article denote the relevant topic in the table above). The following textbooks, though not required, are very useful references. Dynamic programming methods to solve macro, and other commonly used techniques to solve micro and game-theoretic models in public economics are covered in MWG and LS. AS is a classic textbook, while G and RG provide less mathematically rigorous introductions to the topics covered in the course, particularly from an applied perspective. Students interested in reading further and doing research should look at AF, K and PT. SR is an excellent textbook that covers India's experience with fiscal federalism. Some of the material from the lectures will be directly based on chapters from these books (in particular LS, PT, SR, and K).

a. **Textbooks:**

1. Atkinson and Stiglitz (AS), *Lectures on Public Economics*, Princeton University Press
2. Auerbach and Feldstein (eds) (AF), *Handbook of Public Economics* Vols 1,2,3,4 & 5, Elsevier
3. Gruber (G), *Public Finance and Public Policy*, Macmillan UK
4. Kocherlakota (K), *New Dynamic Public Finance*, Princeton University Press
5. Ljungqvist and Sargent (LS), *Recursive Macroeconomic Theory*, The MIT Press
6. Mas-Colell, Whinston, and Green (MWG), *Microeconomic Theory*, Oxford University Press
7. Persson and Tabellini (PT), *Political Economics: Explaining Economic Policy*, The MIT Press
8. Rosen and Gayer (RG), *Public Finance*, McGraw-Hill
9. Singh and Rao (SR), *Political Economy of Federalism in India*, Oxford University Press (India)

b. **Journal articles:**

1. Arulampalam, W., Dasgupta, S., Dhillon, A., and B. Dutta (2009), "Electoral goals and center-state transfers: A theoretical model and empirical evidence from India", *Journal of Development Economics*, Vol. 88, No. 1, pp. 103-119 (**FF**)
2. Baron, D., and J. Ferejohn (1989), "Bargaining in legislatures", *American Political Science Review*, Vol. 83, No. 4, pp. 1181-1206 (**E&P**)
3. Barro, R. J. (1974), "Are government bonds net wealth?", *Journal of Political Economy*, Vol. 82, No. 6, pp. 1095-1117 (**DOT**)
4. Barro, R. J. (1979), "On the determination of the public debt", *Journal of Political Economy*, Vol. 87, No. 5, pp. 940-971 (**DOT**)
5. Battaglini, M., and S. Coate (2008), "A dynamic theory of public spending, taxation, and debt", *American Economic Review*, Vol. 98, No.1, pp. 201-236 (**DPP**)
6. Boadway, R., and M. Keen (1993), "Public goods, self-selection, and optimal income taxation", *International Economic Review*, Vol. 34, No. 3, pp. 463-478 (**PG**)
7. Chamley, C. (1986), "Optimal taxation of capital income in general equilibrium with infinite lives", *Econometrica*, Vol. 54, No. 3, pp. 607-622 (**DOT**)
8. Coate, S. (1995), "Altruism, the Samaritan's dilemma, and government transfer policy", *American Economic Review*, Vol. 85, No. 1, pp. 46-57 (**OTP**)
9. Das, P., and C. Ghate (2022), "Debt decomposition and the role of inflation: A security level analysis for India", *Economic Modelling*, Vol. 113 (**PDI**)
10. Diamond, P. A. (1975), "A many-person Ramsey tax rule", *Journal of Public Economics*, Vol. 4, No. 4, pp. 335-342 (**SOT**)
11. Diamond, P. A., and J. A. Mirrlees (1971), "Optimal taxation and public production I: Production efficiency", *American Economic Review*, Vol. 61, No. 1, pp. 8-27 (**SOT**)

12. Kanbur, R., and M. Keen (1993), “Jeux sans frontieres: Tax competition and tax coordination when countries differ in size”, *American Economic Review*, Vol. 83, No. 4 pp. 877-892 (**FF**)
13. Kaplow, L. (2006), “Public goods and the distribution of income”, *European Economic Review*, Vol. 50, No. 7, pp. 1627-1660 (**PG**)
14. Khemani, S. (2007), “Does delegation of fiscal policy to an independent agency make a difference? Evidence from intergovernmental transfers in India”, *Journal of Development Economics*, Vol. 82, No. 2, pp. 464-484 (**FF**)
15. Lindbeck, A., and J. Weibull (1987), “Balanced-budget redistribution as the outcome of political competition”, *Public Choice*, Vol. 52, No. 3, pp. 273-297 (**E&P**)
16. Lizzeri, A., and N. Persico (2001), “The provision of public goods under alternative electoral incentives”, *American Economic Review*, Vol. 91, No. 1, pp. 225-239 (**E&P**)
17. Mirrlees, J. A. (1971), “An exploration in the theory of optimum income taxation”, *Review of Economic Studies*, Vol. 38, No. 2, pp. 175-208 (**SOT**)
18. Persson, T., and G. Tabellini (1999), “The size and scope of government: Comparative politics with rational politicians”, *European Economic Review*, Vol. 43, pp. 699-735 (**E&P**)
19. Saez, E. (2002), “Optimal income transfer programs: Intensive versus extensive labor supply responses”, *Quarterly Journal of Economics*, Vol. 117, No. 3, pp. 1039-1073 (**OTP**)
20. Samuelson, P. A. (1954), “The pure theory of public expenditure”, *Review of Economics and Statistics*, Vol. 36, No. 4, pp. 387-389 (**PG**)
21. Sandmo, A. (1975), “Optimal taxation in the presence of externalities”, *Swedish Journal of Economics*, Vol. 77, No. 1, pp. 86-98 (**E**)
22. Weitzman, M. L. (1974), “Prices versus quantities”, *Review of Economic Studies*, Vol. 41, No. 4, pp. 477-491 (**E**)

c. Other readings:

1. Fiscal Responsibility and Budget Management Act (2003), *Ministry of Finance*, Government of India
2. Indian Public Finance Statistics (2019), *Dept. of Economic Affairs, Ministry of Finance*, Government of India
3. Medium Term Expenditure Statement (2023), *Ministry of Finance*, Government of India
4. State Finances: A Study of Budgets 2022-23 (2023), *Reserve Bank of India*
5. Union Budget (2023), *Ministry of Finance*, Government of India

11. Any other remarks: None

Dated: April 11, 2023

Proposer: Neelanjan Datta

Dated:

DUGC/DPGC Convener:

The course is approved / not approved.

Chairman, SUGC/SPGC

Dated: