Indian Institute of Technology Kanpur
Proposal for a New Course

1. Course No: ECO7xx

2. Course Title: Advanced Topics in Microeconomics

3. Per Week Lectures: 3 (L), Tutorial: 0 (T), Laboratory: 0 (P), Additional Hours: 0

Credits: (3*L+T +P+A): 9 credits

Duration of Course: Full Semester Course

4. Proposing Department: Economic Sciences

Other Departments which may be interested: None

5. Proposing instructor(s): Faculty members of the department of economic sciences

Level of the course: PG

6. Course Description:

A) Objectives: This course introduces students to advanced topics in microeconomic analysis, with a particular focus on general equilibrium theory and the theory of Bayesian games.

B) Contents

S. No.	Broad title	Topics	No. of Lectures
1.	General Equilibrium	Exchange, Edgeworth Box, One Consumer and One Producer Economy, Production, First and Second Fundamental Theorems of Welfare Economics, Pareto Optimality, Existence, Applications to International Trade - Optimality of International Trade, Arguments for Free Trade, Comparative Advantage, Factor price equalization. Rybcszynski's Theorem	8
2.	Choice under uncertainty	Preferences over Lotteries, VNM utility, Risk Aversion, Risk Premium, Certainty Equivalent	2
3.	Static games of incomplete information	Bayesian Nash Equilibrium, Mechanism Design, Revelation Principle, Auctions	6
4.	Dynamic games of incomplete	Perfect Bayesian Equilibrium, Signalling games, Refinements of PBE	6

		information		
5.	Miscellaneous topics	General equilibrium under uncertainty, Mechanism Design Without Money, Evolutionary Game Theory, Cooperative Game Theory, Market Design, Reputation, Nash Bargaining, Cheap Talk…	4	

C) Prerequisites: None.

D) Short summary for including in the Courses of Study Booklet: This course introduces students to advanced topics in microeconomic analysis, with a particular focus on general equilibrium theory and the theory of Bayesian games. General equilibrium theory studies the interaction of demand, supply and prices across multiple markets, in contrast to partial equilibrium analysis which studies each market in isolation. Bayesian games, or games of incomplete information, are games in which players have private information about their payoffs. This course also introduces the theory of individual decision-making under uncertainty.

7) Recommended textbooks:

Game Theory for Applied Economists by Gibbons. Princeton University Press.

Advanced Microeconomic Theory by Jehle and Reny, Prentice Hall

Microeconomic Analysis by Hal Varian. Norton

Microeconomic Theory by Mas-Collel, Whinston and Green. Oxford University Press.

Public Finance and Public Policy by Jonathan Gruber. Macmillan, 2005.

8) Any other remarks: None.

Dated: 04/10/2022   Proposer: Dr. Vasudha Jain

Dated: _____   DUGC/DPGC Convener:_____

The course is approved / not approved

Chairman, SUGC/SPGC

Dated:_____