



# APPLIED ECONOMETRICS

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IITKGP

**TYPE OF COURSE** : New | Elective | PG

**COURSE DURATION** : 12 Weeks (26-Jul' 21 - 15-Oct' 21)

**EXAM DATE** : 24 Oct' 2021

**PRE-REQUISITES** : Higher Secondary Level Mathematics Knowledge

**INTENDED AUDIENCE** : Management, Humanities, Economics, Industrial Engineering

**INDUSTRIES APPLICABLE TO** : Banking, Policy making/ Development Organization, Consulting Firms

**COURSE OUTLINE :**

Unique value added by this present course is that it will teach the students from data collection to conclusion of a study using econometric techniques. Second, it will delve deep into experiments in the field of Economics. Experimental Economics is a thriving area in the field of Economics.

**ABOUT INSTRUCTOR :**

I was an undergraduate (BE) in Production from Jadavpur University. Mainly with an interest to make a larger impact, I choose to do a PhD in Public Policy from IIM Calcutta. After my PhD, I have experience of working with the Government of India, World Bank and UNDP.

**COURSE PLAN :**

**Week 1:** Sampling Fundamentals

**Week 2:** Descriptive Statistics: Mathematical Distributions

**Week 3:** Statistical Inferences

**Week 4:** Review of Least Square and Linear Model

**Week 5:** Probit, Logit & 2SLS

**Week 6:** Review of Instrumental Variable

**Week 7:** Introduction to Nonparametrics

**Week 8:** Regression & Matching

**Week 9:** Regression Discontinuity Design

**Week 10:** Difference in Difference

**Week 11:** Estimation of Treatment Effect

**Week 12:** Introduction to Data Mining (for High Dimensional Data)