This course provides research methods for academic researchers, policymakers, and market practitioners to answer three questions: (1) If a policy has been carried out, how to scientifically quantify its effects? (2) If a policy is going to be implemented, how to predict its effects? (3) Based on policies implemented, how to design better policies in the future by making causal/behavioral inferences? To achieve this end, the course first describes the concepts of program evaluations in both the Rubin and Roy frameworks. It then introduces a variety of social and field experimental approaches such as difference-in-difference (DD) estimator, regression discontinuity design (RDD), and randomized controlled trials (RCT). Finally, it discusses how to use experimental approaches to identify structural models, derive behavioural inferences, and then make predictions.

Course Outline
- Statistic and behavioural challenges to program evaluation
- The Rubin counterfactual framework versus the Roy framework
- Heckman’s model of program evaluation and causality
- Definitions: average treatment effect (ATE), local average treatment effect (LATE), treatment effect on the treated (TT), treatment effect on the non-treated (TUT)
- Difference-in-differences (DD) estimator
- Regression discontinuity design (RDD)
- Social/quasi-experimental methods
- Randomized controlled trials
- Criticism of quasi- and field experimental approaches
- Use experimental approaches to identify structural models and then make behavioral inferences

Who Should Attend
This course is designed for academic researchers in the social sciences who are engaged in intervention research, program evaluation, or more generally causal inference, policy makers in government, NGOs, and international organizations who are engaged in designing and evaluating programs, and practitioners in companies who are interested in designing and evaluating marketing and managerial strategies.

Prerequisites
Basic knowledge of statistics and regression analyses.

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Faculty Member

Dr. Yi Junjian is Assistant Professor in the Department of Economics at the National University of Singapore. He got his PhD from the Chinese University of Hong Kong and then did a three year postdoc at the University of Chicago. His research focuses on labor and demographic economics, economic development, economics on human capital, and Chinese economy. Dr. Yi’s recent research papers have appeared in economics and demography journals, such as Economic Journal, Review of Economics and Statistics, and Demography.