INTRODUCTION TO INFORMATION ECONOMICS
ECON 7335
CORNELL UNIVERSITY
SPRING 2021

Professor: Kristoffer Nimark
Class time: Tuesdays and Thursdays 2.45-4pm (Zoom).
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Overview

Many economic decisions are made with only partial and imperfect information about variables relevant to agents' pay offs. This course equips students with some of the tools needed to model build and solve models that deviate from full information rational expectations. The course covers many of the seminal papers in the literature and substantive results will be discussed along with the specific methods and techniques needed to derive them. Lecture notes will be provided, but reading articles will also be required.

Grades will be based on a take-home report (40%) and a mid-term exam (60%).

Course Outline

Lecture 1: Overview and some basics.

(1) Course overview
(2) Bayesian learning: The basics
(3) Linear projections, information sets and conditional expectations

Lecture 2: The Kalman Filter.

(1) The scalar filter
(2) The multivariate filter

Lecture 3: Island models of imperfect information.

(1) Confounding of aggregate and idiosyncratic shocks
(2) Noisy information and business cycles

Lecture 4: Private and Public Information.

(1) Coordination and public signals
(2) Higher order expectations

Lecture 5: Heterogenous information in asset markets.

(1) Noisy rational expectations equilibria

Lecture 6: The information revealed by markets.

(1) The impossibility of informationally efficient markets
(2) Invertible information sets

Lecture 7: Social Learning.

(1) Cascades and herds
(2) Learning from the equilibrium action of others

Lecture 8–9: Endogenous information choice.

(1) Basics of information theory
(2) Rational inattention and economic decisions

Lecture 10: Bayesian Persuasion.

(1) Statistical persuasion of rational agents

Lecture 11: News media and delegated information choice.

(1) Some stylized facts of news media coverage
(2) State dependent news selection and beliefs

Lecture 12: Solving dynamic models with private information.

(1) Forecasting the forecasts of others
(2) Dynamic higher order expectations

Lecture 13: Empirical implications of heterogenous information.

(1) Public information, sentiments and speculation
(2) Using survey data in estimation

Lecture 14: Exam.