

Phil 5220-001

Game Theory

BU C 106

INSTRUCTOR: Carlos Santana
OFFICE HOURS: by appointment
EMAIL: c.santana@utah.edu

MW / 11:30-1:10 (bring lunch if you want)

Course Description

Game theory is a mathematical tool used for modeling behavior, where the outcome of one individual's behavior is dependent on the behavior of other individuals. In other words, it's a tool useful for modeling not only most human behavior, but also that of other organisms and even biological entities like cancer cells.

As the course has no prerequisites, progress in the course won't require more advanced game theory using tools from, e.g. calculus, though I will provide opportunities for advanced students to pursue more advanced techniques.

Objectives

In this course, we'll learn the basics of how to use game theory: how to represent a situation as a game, how to solve that game using equilibrium concepts, and how to use analytical and numerical tools to learn about the world using game theoretic models. We'll also apply game theory to philosophical problems.

By the end of the course you should be able to do original work applying game theory to your areas of academic interest.

Texts

All readings will be posted to Canvas