Dynamic Economics

A brief class layout suggested by Christian Traeger.

The *Dynamic Economics* lecture will train our Master students in dynamic economic thinking and intertemporal trade-offs. It will draw from a variety of economic fields such as macroeconomics, asset pricing, behavioral economics, environmental & resource economics, heterogenous agent modeling, decision theory, industrial organization, and (possibly) econometrics. Given the variety of subjects covered, I will make sure that direct overlaps with individual topic classes are minimal. The overarching theme is the exploration, interpretation, and understanding of dynamic trade-offs in economic reasoning.

Methodologically, the class will start with basic reasoning in a two period model, and move on to dynamic programming in discrete and continuous time. These latter formulations permit the most intuitive interpretations of the trade-offs. Hereby, the class will rely on Traeger's long experience to flesh out general trade-offs as well as the instructive use of models with closed-form solutions.

The class will apply similar model structures to the different economic topics sampled above (or a subset thereof), analyzing similarities and differences and slowly building up from simple two period insights to more sophisticated trade-offs over time. The class will explore the impact of risk aversion and prudence on optimal decision making under uncertainty, as well as behavioral aspects of decision making. It will analyze how the persistence of uncertainty as well as Bayesian learning and the anticipated resolution of uncertainty affects today's decisions as well as the dynamics over time. At this point, I leave open whether and to what degree the class will also introduce numeric methods and methods for estimating dynamic models.