

Dynamic Economics (ECON 433)

Instructor: Syed Zahid Ali

Pre-Req: Mathematical Applications in Economics (ECON 262)

Credit Hours: 4

Schedule: Monday to Friday (2:00PM to 4:50PM)

This is a 400 level course designed to enhance students' skills to comprehend, solve, and calibrate mathematical models appear in recent journal articles and advanced economics textbooks. This course starts with the concept of dynamic economic models. Then we will provide with various examples from macro and microeconomics to demonstrate how a static model converted into dynamic model. Soon after, we will learn how to solve differential/difference equations of various types and how to plot phase diagram and trace phase trajectories. Second order differential/difference equations and system of differential/difference equations will be discussed next. If time permitted, we will discuss models involving calculus of variation and optimal control theory.