Prerequisite: STA 371G, STA 371H, STA 375, STA 375H, or their equivalent.

STA 372 is an applied course focusing on the application of time series methods to forecasting problems that arise in the business world. Some of the topics that will be covered include: (1) Exponential smoothing models; (2) Seasonal adjustment of time series data; (3) Time series regression models; (4) Box-Jenkins models; (5) ARCH/GARCH models for time-varying volatility in financial returns; and (6) Diffusion models for new product forecasting.

Each topic will be illustrated with multiple examples taken from business problems that arise in a variety of real world settings. In addition, the course will convey a solid fundamental understanding of the methods, using an intuitive graphical approach to explain and motivate the models. At the end of the course, students will be able to apply a forecasting tool set to their own data in order to forecast the future.

The pre-requisite for this course is some basic knowledge about regression. If you have not had one of the pre-requisite courses listed above, please contact Tom Shively directly via e-mail (tom.shively@mccombs.utexas.edu) about whether a previous statistics course meets the pre-requisite requirement.