ISDS 473 - Applied Statistical Forecasting - *Forecasting for Managers*

Do you major in Marketing, Economics or Finance? Then, you may consider this course as one of your electives. You only need to have already passed ISDS 361 B to enroll.

This course is concerned with quantitative and qualitative methods to predict the uncertain nature of business trends in an effort to help managers make better decisions and plans. It covers all aspects of business forecasting with emphasis on intuitive concepts and applications using professional software - *Forecast Pro XE 5.0*. The course is loaded with numerous real, relevant, business case studies and examples that students can use to practice the application of forecasting concepts.

**COURSE OUTLINE / GOALS**

- **The basics of forecasting**: properties of data ♦ overview of methods ♦ evaluating forecast accuracy.
- **Exponential smoothing methods**: simple one, Holt two and Winters three parameter ♦ Event models
- **Time series decomposition**: components of data ♦ business cycle ♦ Census X-11
- **Box-Jenkins models**: advantages and disadvantages ♦ automatic identification ♦ differencing ♦ diagnostics
- **Regression models**: when to use ♦ standard OLS ♦ lagged variables ♦ Cochrane-Orcutt ♦ Hypothesis tests
- **Special forecasting topics / industry forecasting practices**: short-lived products forecasting ♦ judgmental forecasting.

**GUESS WHAT:**

*By the end of the course you will know how to:*

Navigate effectively and efficiently through Forecast Pro; set up your input data easily and quickly; save results via custom reports, graphs, spreadsheets and audit trails; Select appropriate forecasting techniques; Build automatic and custom forecast models; Model promotions, outliers and irregular seasonality using Event models; Build multiple level models to forecast product hierarchies; And much more. *In short, by the end of the course you will not only have gained considerable insight into business forecasting, but will also be at the level of solving your own forecasting problems.*

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1 Dr Dawit Zerom (Instructor) has been published in various respected scientific journals including the two best forecasting journals: *International Journal of Forecasting* and *the Journal of Forecasting*. You can contact Dr Zerom at dzerom@fullerton.edu for more information about the course.