ACT 435: Statistics for Risk Modeling (new course title)

The use of predictive analytics has spread to most areas of actuarial practice and business in general. While there may be disagreement on what constitutes predictive analytics (or even if that is the best name), there is a clear consensus that actuaries and business professionals need to know more than the basic regression and time series methods. The new curriculum will incorporate predictive analytics topics to better prepare trained actuaries and business analysts for today's opportunities.

Enrollment requirements: Prerequisite(s): MAT 342 or 343 with B or better; STP 420 with B or better

Time: TTH 12:00 – 1:15pm in ECA A217

Instructor: Dr. P. Jevtic

New course description: This course is devoted to predictive analytics education by covering key concepts of statistical learning and the R programming language (aka machine learning). It provides the transition from mathematical statistics to predictive analytics and its applications. It covers the regression and time series topics as well as generalized linear models, principal component analysis, decision tree models, and cluster analysis.

Text: An Introduction to Statistical Learning, with Applications in R, James, Witten, Hastie, Tibshirani, 2013, New York: Springer. A PDF version of the text can be downloaded at http://wwwbcf.usc.edu/~gareth/ISL/.