## ACT 561: Advanced Data Analytics in Insurance II

**Instructor:** Petar Jevtic, School of Mathematical and Statistical Sciences **Office:** WXLR 341

**Meeting time:** 4:30 pm - 5:45 pm T Th **Place:** Tempe - CPCOM227 **Line number:** 30274

## **Topics:**

This course will expose students to a wide variety of advanced analytics techniques applicable to data types that are routinely found within the insurance industry. Application of data science is rapidly growing in insurance industry and this course will create a long-term knowledge base for students to remain empowered, and in time, master and use more sophisticated emerging techniques. Topics covered include generalized additive models, discriminant analysis, classification and regression trees, bagging, random forests, boosting, Mixture Model-Based Approaches, Spatial models, and others.

## **Prerequisites:**

Actuarial Science MS student; ACT 560 with B or better

## **Course textbook:**

*The Elements of Statistical Learning: Data Mining, Inference, and Prediction*. Second Edition by Hastie, T., Tibshirani, R. and Friedman, J. (2016). New York: Springer.