STATISTICS 590B, Statistical Methods, Application Project in Asset Management  
Fall 2018, Time and Location TBA

• **Instructors:** Vardeman (lead instructor), Caragea, Morris, Niemi, Nordman, Wu

• **Prerequisites:** STAT 510, STAT 543, one of STAT 502 or 602, and one of STAT 551 or 651; or permission of lead instructor.

• **Auxiliary texts** (not required) will be identified as the course progresses

• **Web Page:** http://mmorris.public.iastate.edu/stat590/

• **Learning Outcomes/Objectives:** Upon successful completion of this course, students should understand the use of statistical prediction in asset portfolio management, and be able to design and implement prediction methods appropriate for related applications.

• **Course Format:** The course will be organized around portfolio modeling and prediction as required and used by the Principal Financial Group (PFG). In the first few weeks, representatives of PFG will visit campus to present lectures on terminology, project goals, available data, and approaches and techniques in current use. Class participants will be organized in teams, each with a specific project assignment. Projects will focus on modeling that supports formation of asset portfolios and prediction of portfolio performance, including quantification of prediction uncertainty. Students and instructors will participate in weekly meetings with PFG representatives to report on progress made and discuss next steps. Instructors and students will have additional meetings to discuss and evaluate the technical approaches being used by each team.

• **Course Product:** At the conclusion of the course, each team will provide and be evaluated on:
  – A journal-quality manuscript describing the problem addressed and the methodology and implementation developed as a solution (40% of grade)
  – Software and programs written, along with detailed technical documentation (40% of grade)
  – An oral presentation for PFG representatives and instructors in which developed methods and tools are described and demonstrated (20% of grade)

• **Academic Dishonesty:** “The class will follow Iowa State Universitys policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/academic/misconduct.html.”

• **Disability Accommodation:** “Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact Dr. Morris to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with Dr. Morris, you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.”

• **Dead Week:** “This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook http://www.provost.iastate.edu/resources/faculty-handbook.”

• **Harassment and Discrimination:** “Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.”

• **Religious Accommodation:** “If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.”
• **Contact Information:** “If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.”