ISE 530   Optimization for Analytics

Instructor:

- Michael Karyeaclis
  Office Hours: Virtual, TBD.

Teaching Assistant:

- TBD
  Office hours: TBD.

Texts:

- Gerard Cornuejols, and Reha Tütüncü, *Optimization Methods in Finance,* 4th printing, Cambridge University Press 2013, (`http://web.math.ku,dk/~rolf/CT_FinOpt.pdf`)
- Trevor Hastie, Robert Tibshirani, and Martin Wainwright, *Statistical Learning with Sparcity: The Lasso and Generalizations,* 1st Edition, Chapman and Hall/CRC, 2015. (https://web.stanford.edu/~hastie/StatLearnSparcity/)

Modeling Language Text:

- Rober Fourer, David M. Gay, and Rian W. Kernighan, *AMPL: A Modeling Language for Mathematical Programming,* 2nd Edition. This is available online, and can be downloaded from: `http://www.ampl.com/`

Course and classroom:

- Homework:
  - 5-7 homework will be assigned.
  - Late homework will not be accepted.
  - Students are encouraged to collaborate on homework, but simple copying will not be accepted. Homework sets which show evidence of copying or plagiarism will receive no credit.
  - Homework may be done in groups of at most 3 people, all members of the group being listed in all the reports submitted. However, each member will submit different reports (but see bullet above). One from each set will be graded and the grade will apply to all members in the group.
- Exams:
  - Two exams will be given during the semester, as announced one week ahead of time.
  - Exams will cover all material discussed up to the day of the test.
  - Make up exams will not be given except in serious and exceptional cases and only after presentation of acceptable proof of inability to participate during the exam day.
  - Exams will be open book and notes.

Grading:
- Homework: 30%.
- Exams: 35% each.

Miscellaneous:
- *Students with Disabilities.* Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. It is important that the letter be delivered to the course instructor or TA as early as possible in the semester. DSP is located in STU 301, and is open from 8:30 AM to 5:00 PM, Monday through Friday. Website and contact information for DSP is as follows: http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html, Tel: (213)-740-6948, (213)-740-8216 (FAX). ability@usc.edu
- *Academic Integrity.* USC seeks to maintain an optimal learning environment. General Principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others, as well as, to avoid using another's work as one's own. All students are expected to understand and abide by these principles. Scampus, The Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Judicial Affairs and Community Standards for further review should there be any suspicion of academic dishonesty. The Review process can be found at: http://usc.edu/student-affairs/SJACS/. Information on intellectual property at USC is available at: http://usc.edu/academe/acsen/issues/ipr/index/html.
- *Emergency Preparedness/Course Continuity in a Crisis.* In case of emergency, when travel to the campus is difficult, if not impossible, USC executive leadership will announce a digital way for instructors to teach students in their residency halls using a combination of tools such as teleconferencing and other technologies. For additional information about maintaining classes in an emergency, access: http//cst.usc.edu/services/emergencyprep.html.