OR/IE Graduate Program

Academic Orientation

John Hasenbein – Graduate Advisor
Today’s Schedule

- General Introduction and Question
  - 9:45–10:30am

- Advising in Small Groups
  - 10:30–11:15am
  - 11:15–12:00pm
  - 12:00–12:45pm
OR/IE Faculty Members

- Dr. Jonathan Bard – Asst. Graduate Advisor
- Dr. J. Wesley Barnes – (Retired)
- Dr. J. Eric Bickel – Graduate Recruiter
- Dr. Dragan Djurdjanovic – (DSC & MD)
- Dr. John Hasenbein – Graduate Advisor
- Dr. Erhan Kutanoglu
- Dr. David Morton – Area Coordinator
Graduate Advisor & Coordinator

- GA deals with academic matters
- GC deals with “bureaucratic matters”
- GA: course selection and approval; issues with courses, professor, students
- GC: rules regarding TA/RA assignments, course paperwork (dropping, changing courses), international student regulations
- My office hours are Mondays 10:30am–noon, contact me by email for quick advice or appts.
Master’s Degree Overview

- Three options: Master’s thesis, master’s report, coursework only
- All options require 30 hours of credit
- Core courses: AP, LP, and Statistics Req.
- Outside Electives: 6 hrs in minor area
- Remainder must consist of ORI credits
- OR master’s w/report: 3 core courses, 4 ORI courses, 2 electives, master’s report
- All courses must be approved in advance by GA.
PhD Degree Overview

- Must take 24 hrs (8 courses) approved by GA
- “Master’s” ORI courses do not count: AP, MathStat, Stoch, NLP, IP, LP
- Qualifying Exam, generally taken after two semesters of study
- OR/IE Seminar does not count for degree credit (Master’s or Ph.D.)
Academic Probation

- You must maintain a 3.00 GPA both overall and in your program of work.
- If you fall below a 3.00, you will be placed on “academic probation” by the graduate school.
- You have one semester to raise average.
- You cannot graduate with any (graduate) degree with a GPA less than 3.00!
- Consult me and course professor early in semester if you are struggling!!
First-year Outline – OR Courses

- **Fall 2013**
  - Linear Programming
  - Applied Probability
  - 3rd course (usually an elective)

- **Spring 2014**
  - Integer Programming
  - Applied Stochastic Processes
  - APRIORI
  - Simulation
  - Stochastic Optimization
  - Time Series
Electives Suggestions

- Students often take electives in the following departments/schools
- **Business**: OM, RM, MIS, MAN designations
- Statistics and Scientific Computing
- Statistics
- Mathematics
- Electrical and Computer Engineering
- Economics
- Civil Engineering
Suggested Third Course

- Operations Research
  - Markov Decision Processes (Adv)
  - Pricing and Revenue Management (Adv)
  - Stat Methods in Manufacturing (Adv)
  - Graduate Seminar (DNC for ORIE Degree)
  - OR Models (Undergrad, DNC for ORIE Degree)
  - Statistics Requirement (needed for M.S. Degree)
Suggested Outside Electives

- **Business School**
  - OM 392 Economic Supply Chain Models
  - OM 386 Strategic Sourcing
  - RM 395–7 Managing International Risk
  - MIS 382N–5 Managing Complexity (MBA)
  - MIS 381N Data Analytics Programming

- **Civil Engineering**
  - CE 392T Transportation Network Analysis

- **Math**
  - M 387C Numerical Analysis
  - M 394C Stochastic Geometry (Very Advanced)
  - M 361K Intro to Real Analysis (Undergrad)

- **EE**
  - EE 380N 11 Optimization in Engineering Systems

- **Economics**
  - ECO 354K Intro to Game Theory (Undergrad, or Grad)
Statistics

- **SSC 380C Statistical Methods I** (master’s only)
- **SSC 384–4 Regression Analysis**
- **SSC 384–2 Math Stat 1**
- **SSC 384–7 Bayesian Stat Methods**
- **STA 380 10–Math Stat for Applications**
- **STA 380 Intro Business Data Analytics**
- Other SSC courses
- Generally, any SSC statistics course will satisfy stat requirement