

Course Structure

MGT 40750 – Quantitative Decision Modeling

Simulation

- Process simulation (SimQuick)
- Spreadsheet simulation (@Risk)

Optimization (Solver)

- Linear programming
- Network models
- Integer programming
- Nonlinear programming

A Diversified Set of Examples

- Managing waiting lines at banks, airports, call centers, hospitals
- Inventory management at grocery stores
- Advertising on popular TV shows
- Messaging through mobile network
- Crew scheduling
- Basketball lineup
- Rating college football teams
- Investing for retirement
- Betting strategies in roulette
- Comparing different strategies in hockey
- ...

Recommended Study Strategies

- Be organized
 - Get a 3-ring binder to hold the color-coded course materials
 - Recommended tabs: course introduction; process simulation; linear programming; network models, integer and nonlinear programming; spreadsheet simulation; assignments; exercises and exams
- Come to classes
 - Actively participate in class activities
 - Target: understand _____ of the course materials through in-class activities

Recommended Study Strategies

- Work with classmates on assignments
 - Working on assignments helps you keep up with the pace of the class.
 - Discussions with classmates deepen understanding.
- Come to office hours
 - If you have specific problems, I can help solve your problems.
 - If you are not sure what the problem is, we can discuss and identify the problem.
 - You are always welcome to come talk to me, about pretty much anything.