

# MSA 8245: Analy Methos for Optim & Simul

This course builds on the material from earlier courses in the program. It provides students with a chance to dive deeper into critical optimization, probability, and simulation modeling techniques useful in today's business environment. This course begins with a review of modeling basics, expands the student's exposure to optimization modeling techniques for both linear and non-linear problems, and introduces simulation modeling using an industry-leading simulation software package. Students are exposed to a variety of business problems in analytics (marketing, finance, operations). Throughout the course, students will learn to model and analyze complex business decisions with various tools to improve decision-making across business functions.

**Credits:** 3.0

**Prerequisites:**

MSA 8100 and MSA 8105 and MSA 8110 and MSA 8115