

DATA SCIENCES AND OPERATIONS

FALL 2023

DSO 547 – *Spreadsheet Modeling for Business Insights*

Sections – 16280

Professor
Murat Bayiz

Email
bayiz@marshall.usc.edu

When
Tue/Thu, 12:30 PM – 1:50 PM

Office **Units**
BRI 307 A *3.0*



WHY TAKE THIS COURSE?

Aspiring finance professionals, business analysts, quant-savvy entrepreneurs, and management consultants need spreadsheet modeling skills to draw insights and build projections amidst uncertain conditions.

COURSE OBJECTIVES

Using MS Excel as the platform, this course trains professionals to become effective modelers: to translate industry challenges into well-formulated spreadsheet models, and then use those models to drive decision-making.

KEY CONCEPTS

- Spreadsheet Modeling
- Sensitivity Analysis
- Monte Carlo simulation
- Optimization
- Financial Modeling
- Scenario and Risk Analysis
- Decision Analysis
- Data tables & Pivot Tables
- Think-cell Applications
- Multiple Regression Modeling

COURSE DESCRIPTION

The course teaches spreadsheet modeling skills as well as industry best practices and expectations. Modeling skills are developed throughout the course using examples from many functions and industries. In addition to general modeling skills, the course will teach a handful of frameworks and tools useful to drawing managerial insights.

Particular emphasis is placed on the understanding of the fundamental drivers to quantitative decision-making as well as the communication skills necessary to drive organizational change.