This course provides an introduction to the decision making process, including both the relevant thought processes and the analytical decision-making tools used by companies to solve a variety of problems. Course objectives include:

1. Begin the development of important business skills
   a. Critical thinking: Define an issue and develop a plan of action.
   b. Troubleshooting: Understand the root nature of a problem.
   c. Problem solving: Develop solutions to business issues. An integrative point of view is necessary, as solutions need to be holistic in nature or the “solution” merely moves the problem elsewhere.
   d. Decision making: Use the information provided by the analysis or model, and supported by the data, to make the best decision for the enterprise. This also must be holistic to be optimal and.
   e. Teamwork and collaboration: Understand the skills and talents of the people in your workgroup and fashion these into a team where the whole is greater than the sum of the parts.
   f. Process flow: Business is all about processes, whether effective or not. Process thinking is necessary to quantitative analysis and modeling skills.
   g. Technological support: Apply special-purpose software programs to enhance these skills.

2. In this class, we will primarily use Excel as the technology of choice to transform data into information for decision making.
   a. Data analysis topics:
      i. Histograms and Descriptive Statistics with Excel’s Analysis Toolpak
      ii. Pivot Tables
      iii. Database functions
      iv. Filtering and sorting
      v. Subtotals
      vi. Array formulas
   b. Business modeling topics:
      i. What-if analysis and estimating templates with form controls
      ii. Optimization with Solver and Goal Seek
      iii. Simulation with @RISK