Description

In this three credit, 15-week course, employ analytic models using simple and multivariate methodologies to validate results and develop recommendations for a new product offering. Across four projects, use data wrangling and preparation methods to formulate your analysis. Then, scope and frame questions so that actionable results can be achieved.

Projects

Project 1
Given a scenario and challenge, employ the Rensselaer Analytic Approach to craft hypotheses to determine if a new product should be pursued by the company. Then, develop a logic chain to determine the best approach while considering independent and dependent variables in the process.

Project 2
Engage in data preparation techniques to clean your data, then calculate descriptive statistics for each variable. Explore insights using data visualization to show causality and correlation, as well as collinearity and covariance.

Project 3
Continuing to work under the guise of this scenario, leverage the data you have prepared, to make specific and defensible recommendations about whether the product should be pursued.

Project 4
Use data and regression techniques to predict who may buy the product, then prepare a comprehensive presentation on the product’s viability for the CEO.

Outcomes

Completion of the course enables you to:

- Demonstrate use of data in an analytic framework
- Utilize data management techniques to assemble data
- Build exploratory analytic techniques to draw insights
- Use regression techniques to determine variable relationships
- Use statistical techniques and tools to evaluate the explanatory power of analytic results
- Use the results of analytic inquiry to prepare predictions and forecasts
- Create a business proposal that demonstrates actionable insights

Features

Live, online synchronous sessions with the instructor and professionals from various industries are scheduled every 2-3 weeks throughout the semester. These sessions are designed to cultivate your understanding of course concepts and guide your approach as you gain insights from others’ experience.

Technology

This course is offered through the Rensselaer Studio, providing ease of access to all course technologies and software required, any time, anywhere. Synchronous sessions are held via Zoom.