Utility Analytics 101
Course Outline

Day 1
Welcome
• Introductions
• Expectations and goals
• Overview of software used in this course

Data & Analytics Overview
• Terms & relationships
• Analytics levels
• Maturity index
• Process model (CRISP-DM)

Business Understanding
• Utility use cases
  o Asset health
  o Customer analytics
  o Grid analytics
  o Safety analytics
• Training data overview

Data Understanding
• Understanding big data, data sources, and data types
• Data visualization
  o Fundamental concepts
  o Best practices
  o Hands-on demonstration in Excel

Day 2
Data Understanding (continued)
• Exploratory Data Analysis (+ data prep) with SQL
  o Relevant stats concepts
  o SQL Overview
  o Hands-on demonstration with PostgreSQL
Day 3
Communicating Results
- Clarify context and identify the audience
- Big Idea and storyboarding
- Telling a story

Application: Putting it all together with Python
- Jupyter Notebooks overview
- EDA with Python
- Understanding context exercise
- Data visualization for communication

Next Steps and Concluding Remarks