Data Analytics and Visualization for Auditors

Practical Introduction to Data Analytics Techniques and Methods for Internal Auditors

Course Schedule and Activities:

**Day One**

- Analytics & Automation in the context of IA
  - Why / value
  - Marketplace perspectives
  - Use Cases
  - Maturity model
  - Strategic considerations
    - People
    - Process
    - Methodology
    - Data Management
  - Project identification & ROI
- Introduction to Data Science & Analytics
  - What is analytics
  - Identify and define key data analysis terms
  - List common issues regarding data types
  - Tools overview
  - Explain necessary preparation to get started on a data analysis project

**Day Two**

- Data science & analytics techniques
  - Methodology & CRISP-DM
  - Predictive Analytics (unsupervised and supervised)
  - Social network analysis & link analysis
  - Text analytics
  - Leading practices
- Common analytics tools and platforms
- Various exercises and demonstrations of techniques

**Day Three**

- Data visualization and Storytelling
  - Why visualizations
  - Visualizations in the business world
  - Leading practices on creating visualizations
  - Visualization Tool Overview and Comparison
- Introduction to Tableau
  - Interface tour
  - Importing data sets
  - Developing charts
  - Calculated fields
  - Dashboards and Actions

**Day Four**

- End to end Tableau use case

*Topics and activities may vary by class and instructor.*