

IA Analytics & Automation:

Enabling the Internal Audit of the Future

Course Schedule – Topics & Activities

Day One

- 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

- 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

Day Two

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

Day Three

- Visual analytics
 - Why visualizations
 - Visualizations in the business world
 - Validity in decision making
 - Exploiting cognitive ability for decision making to create effective data visualizations
 - Leading practices on creating visualizations
 - Visualization Tool Overview and Comparison

- Presenting observations & Story telling
 - Why we tell stories
 - The Science: Approach to Developing Stories
 - The Art: Developing Data-Driven Content

- Introduction to Tableau
 - Interface tour
 - Importing a data set
 - Developing charts
 - Calculated fields
 - Dashboards and Actions

Day Four

- End to end use case

*Topics and activities may vary by class and instructor.