Introduction to Data Analytics (3 Day)

Course Description:

In our **Introduction to Data Analytics** course, participants are introduced to the world of data analysis. We cover a broad set of topics so students get a well-rounded view of data analysis. In addition to improving their data analysis skills, participants will be prepared to obtain further training in areas most applicable to their needs.

Throughout this course, participants are provided the opportunity to improve their data analysis skills. We introduce them to an organizational problem or challenge that they will use data to solve. In doing so, participants will envision the solution begin an iterative process of exploring data to raise questions and analyzing data to answer questions thus creating information that can be used to address their problem.

Participants will begin their analysis by envisioning the information they need in order to obtain their solution for this project. They will then work to develop interview and survey questions that will help them gather the data they need to obtain the information they require.

Participants will gain experience conducting interviews and surveys to gather data and then incorporating the data into their projects. They will need to cleanse, organize, transform the new data and compare it to the original data set. Participants are introduced to inferential statistical analysis because our newly gathered data only represents a sample.

They will employ a variety of descriptive statistical methods to extract information from data and learn how to organize the information using the proper context. We will introduce them to diagnostic, predictive and prescriptive analytics to increase their knowledge of how data analysis can be used to address organizational problems.

By giving participants the opportunity to organize and present their results in the class, they learn the how to properly communicate information that is supported by their data analysis.

Course Objectives:

Upon the successful completion of this course, participants will be able to:

1. Translate an organizational problem into an accomplishable analysis project
2. Define Analytics Process Model
3. Identify each phase of the Analytics Process Model and its purpose
4. Begin formulating a study plan
5. Write a problem statement
6. Define effective objectives for analysis
7. Develop interview questions and conduct short interviews
8. Develop and administer a brief survey
9. Apply basic quantitative analysis techniques
10. Analyze data using descriptive statistics (e.g., mean, median, mode, range, variance, standard deviation, and frequencies)
11. Apply basic Excel functions to filter data, sort data, create ranges, and anchoring
12. Develop an outline for an executive summary in an analytical report
13. Give a short briefing to present analysis results

Length:
3 Days