The CPDA Course Learning Sequence

Part 1: (Intro to Statistics)
Learn how to apply statistical analysis to data and how to use software for statistical analysis.

Part 2: (Intro to Data Mining)
Learn the Data Mining methodology and how to gather, use, and model clean data.

Part 3: (Intro to Machine Learning)
Explore the study and construction of algorithms that can learn from and make predictions on data.

Part 4: (Advanced Analytics)
Learn more about the Data Mining methodology as well as the use of algorithms.

AND / OR

Part 5: (Visual Analytics)
Learn how to tell a story about your data and how to use data visualization software.
It is **required** that participants take courses in this order:

1st  Introductory Statistics for Data Analytics

2nd  Introduction to Data Mining

3rd  Machine Learning or Practical Application of Advanced Analytics  
     (Must be taken after Statistics and Data Mining)

* Visual Analytics can be taken any time.
Dual Purpose For
Practical Application to Advance Analytics

• Builds on the Data Mining Course.

• Learn more about data modeling.

• Teaches the use of algorithms but not how to program them.
  o This is taught in *Introduction to Machine Learning* and that course requires Linear Algebra and Calculus experience.
Sample CPDA (5) Course Sequence

Course # 1
Introductory Statistics for Data Analytics

Course # 2
Introduction to Data Mining
* Pre-req is Stat’s

Course # 3
Practical Application to Advanced Analytics
* Pre-req’s are Stats and DM

Course # 4
Introduction to Machine Learning
* Pre-req’s are Stat’s and DM

Course # 5
Visual Analytics for Sensemaking
- No pre-req’s
- Can be taken anytime
Other Sample Sequence Options

(4) Course Sequence

Course # 1
Introductory Statistics for Data Analytics

Course # 2
Introduction to Data Mining

Course # 3
Visual Analytics for Sensemaking

Course # 4
Practical Application to Advanced Analytics

(5) Course Sequence

Course # 1
Introductory Statistics for Data Analytics

Course # 2
Introduction to Data Mining

Course # 3
Visual Analytics for Sensemaking

Course # 4
Practical Application to Advanced Analytics

Course # 5
Introduction to Machine Learning

(6) Course Sequence

Course # 1
Introductory Statistics for Data Analytics

Course # 2
Introduction to Data Mining

Course # 3
Linear Algebra and Calculus

Course # 4
Introduction to Machine Learning

Course # 5
Visual Analytics for Sensemaking

Course # 6
Practical Application to Advanced Analytics