Certification Overview
This certification is designed to build on the skills developed in the Associate level course in Data Science (Data Science & Big Data Analytics) and help aspiring Data Scientists continue to evolve and expand their skill sets. The main growth areas include advanced analytical methods, Hadoop (and Pig, Hive, HBase), Social Network Analysis, Natural Language Processing, and Visualization methods. The development of these skills and the use of these methods provide the data scientist the ability to identify and communicate conclusions and recommendations in order to solve business challenges across many domains.

Certification Requirements
To complete the requirements for this certification you must:

1. Achieve the following Associate level certification:
   - Associate - Data Science Version 1.0
   - Associate - Data Science Version 2.0

2. Pass the following Specialist exam on or after May 1, 2015:
   - [E20-065 Advanced Analytics Specialist Exam for Data Scientists](#)

Note: These details reflect certification requirements as of May 1, 2015.

The Proven Professional Program periodically updates certification requirements. *Please check the [Proven Professional CertTracker](#) website regularly for the latest information and for other options to meet the Associate level requirement.*
E20-065 Advanced Analytics Specialist Exam for Data Scientists

Exam Description

Overview
This exam is a qualifying exam for the Specialist - Data Scientist, Advanced Analytics (DCS-DS) track.

This exam focuses on MapReduce, the Hadoop Ecosystem, NoSQL, Natural Language Processing, Social Network Analysis, Data Science Theory and Methods, and Data Visualization.

Dell Technologies provides free practice tests to assess your knowledge in preparation for the exam. Practice tests allow you to become familiar with the topics and question types you will find on the proctored exam. Your results on a practice test offer one indication of how prepared you are for the proctored exam and can highlight topics on which you need to study and train further. A passing score on the practice test does not guarantee a passing score on the certification exam.

Exam Topics
Topics likely to be covered on this exam include:

MapReduce (15%)
- MapReduce framework and its implementation in Hadoop
- Hadoop Distributed File System (HDFS)
- Yet Another Resource Negotiator (YARN)

Hadoop Ecosystem and NoSQL (15%)
- Pig
- Hive
- NoSQL
- HBase
- Spark

Natural Language Processing (NLP) (20%)
- NLP and the four main categories of ambiguity
- Text Preprocessing
- Language Modeling

Social Network Analysis (SNA) (23%)
- SNA and Graph Theory
- Communities
- Network Problems and SNA Tools

Data Science Theory and Methods (15%)
- Simulation
- Random Forests
- Multinomial Logistic Regression and Maximum Entropy
Data Visualization (12%)

- Perception and Visualization
- Visualization of Multivariate Data

The percentages after each topic above reflects the approximate distribution of the total question set across the exam.

Recommended Training

The following curriculum is recommended for candidates preparing to take this exam.

Please complete one of the following courses

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<tr>
<th>Course Title</th>
<th>Course Number</th>
<th>Mode</th>
<th>Available</th>
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<tr>
<td>Advanced Methods in Data Science and Big Data Analytics</td>
<td>MR-1CP-ETAAMUSD</td>
<td>Instructor-Led</td>
<td>4/6/15</td>
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<td>Advanced Methods in Data Science and Big Data Analytics - Video ILT</td>
<td>MR-1TP-ETAAMUSD-966</td>
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<td>MR-1LP-ETAAMUSD</td>
<td>Online ILT</td>
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Note: These exam description details reflect contents as of May 1, 2015.

The Proven Professional Program periodically updates exams to reflect technical currency and relevance. Please check the Proven Professional website regularly for the latest information.