



# HP Education Services Course Overview

## Hadoop for System Administrators (H6C60S)

This course covers the essentials of deploying and managing an Apache™ Hadoop® cluster. The course is lab intensive with each participant creating their own Hadoop cluster using either the CDH (Cloudera's Distribution, including Apache Hadoop) or Hortonworks Data Platform stacks. Core Hadoop services are explored in depth with emphasis on troubleshooting and recovering from common cluster failures. The fundamentals of related services such as Ambari, Zookeeper, Pig, Hive, HBase, Sqoop, Flume, and Oozie are also covered.

### Audience

- Systems Administrators who will be responsible for managing and administering Hadoop clusters

### Prerequisites

- Qualified participants should be comfortable with Linux commands and have some systems administration experience, but do not need previous Hadoop experience

### Benefits to you

- Hands-on coverage of Hadoop gives systems administrators the skills they need to properly deploy, manage, and maintain Hadoop clusters

### Why education services from HP?

- Named a 2014 IDC MarketScape leader\* in IT education in Cloud, Security, Big Data, Storage, ITIL/ITSM, Project Management training, after being recognized in 2013 for being an IDC MarketScape leader in IT education overall
- Global reach through 90 training centers in 45+ languages, with access to over 800+ experienced instructors
- Job-focused courses on HP technologies leading to HP ExpertOne certifications

<b>Course title:</b>	Hadoop for System Administrators
<b>HP product number:</b>	H6C60S
<b>Category/Subcategory:</b>	ProLiant
<b>Course length:</b>	3 days
<b>Level:</b>	Intermediate
<b>Delivery language:</b>	English
<b>To order:</b>	In HK, please contact HP Education Services on (852) 3070-6692 or email at <a href="mailto:hp-education.hk@hp.com">hp-education.hk@hp.com</a> or visit <a href="http://www.hp.com.hk/education">www.hp.com.hk/education</a> Other countries please visit <a href="http://www.education.hp.com">www.education.hp.com</a>

- Wide range of education consulting services tailored to your specific needs to prepare you for IT transformation projects  
Flexibility to learn through a wide variety of delivery modalities: traditional ILT (Instructor-led), VILT (Virtual instructor-led), SPEL (Self paced e-learning), games and simulations

- \* IDC MarketScape: US Cloud , Security, Big Data, Storage, ITIL/ITSM, Project Management Training Ecosystem, August 2014 Vendor Assessments, IDC #250180, IDC #250186 , IDC #250181, IDC #250182, IDC #250185, IDC #250178, #239139.

## Next steps

- View our Big Data curriculum path
- HP also recommends the HP Roadmap Services for Hadoop from our HP Consulting team

## Detailed course outline

### Chapter 1 - HADOOP: THE BIG PICTURE

- Data Analysis
- Big Data
- Hadoop Core Architecture
- Hadoop Ecosystem
- Hadoop Ecosystem continued
- Running Commands on Multiple Systems

#### Lab Tasks

1. Running Commands on Multiple Hosts [R6]
2. Preparing to Install Hadoop

### Chapter 2 - HDFS

- Design Goals
- Design
- Blocks
- Block Replication
- Namenode Daemon
- Secondary Namenode Daemon
- Datanode Daemon
- Accessing HDFS
- Permissions and Users
- Adding and Removing Datanodes
- Balancing

#### Lab Tasks

1. Single Node HDFS
2. Multi-node HDFS
3. Files and HDFS
4. Managing and Maintaining HDFS

### Chapter 3 - MAPREDUCE

- MapReduce
- Terminology and Data Flow

- MapReduce Daemons
- YARN
- MapReduce Essential Configuration
- Failure and Recovery

#### Lab Tasks

1. MapReduce

### Chapter 4 - MAPREDUCE SCHEDULERS

- Working with Jobs
- Scheduling Concepts
- FIFO Scheduler
- Fair Scheduler
- Fair Scheduler - Configuration

#### Lab Tasks

1. MapReduce Schedulers

### Appendix A - INSTALLING HADOOP WITH AMBARI

#### Lab Tasks

1. Installing Hadoop with Ambari [R6]

## For more information

To locate country contact information and to learn more about education services, please visit our worldwide web site at <http://www.hp.com/learn>.

