

**Fundamentals of DataOps**

**Course Number:** DATA-124WA  
**Duration:** 1 day

**Overview**

This DataOps training course teaches attendees how Data Operations improve the speed and accuracy of data insights compared to traditional methods. Participants learn how to use Data Engineering, DevOps, Agile, and Lean Manufacturing principles to improve the digital logistics of data analytics and reduce repetitive task cycles and manual processes. This course helps your team navigate and optimize the ‘cradle-to-grave’ data lifecycle from acquisition, storing, and processing to retiring obsolete data.

**Prerequisites**

All participants must have general programming and data processing knowledge.

**Materials**

All DataOps training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Computer with Internet connectivity
* Ability to install software on the computer
* Recent 64-bit OS, such as Windows 10, macOS, or Linux

**Objectives**

* Understand what DataOps is
* Shorten the "time-to-insight" cycle
* Use the DataOps Pipelines
* Leverage the toolchains, methods, and ideas of Data Engineering, DevOps, Agile, and Lean Manufacturing
* Implement DataOps

**Outline**

* Intro to DataOps
  + Problems in the Data & Analytics Industry
  + Organizational Complexities
  + What Is DataOps?
* DataOps Production Pipeline
  + The Three DataOps Pipelines
  + Meta-Orchestrate Tools, Teams & Processes
  + Automate Tests for Error Detection
  + Types of Tests
  + Measure Production Processes, Reflect & Improve
* DataOps Development Pipeline
  + Development Lifecycle Complexities
  + Data & Analytics Development
  + How to Achieve Fast Deployments
  + DataOps Deployments: Beyond DevOps
* DataOps Environment Pipeline
  + DataOps Environment Challenges
  + Environment Management: Components & Use Cases
  + Principles of DataOps Environments
* DataOps Implementation
  + Lean DataOps Implementation
  + Four Phases of Lean DataOps
  + Getting started with DataOps
* Conclusion