

# Certified Data Science Practitioner (CDSP™)

Duration  
5 Days

Delivery Methods  
VILT, Private Group

## CERTNEXUS®

For a business to thrive in our data-driven world, it must treat data as one of its most important assets. Data is crucial for understanding where the business is and where it's headed. Not only can data reveal insights, it can also inform—by guiding decisions and influencing day-to-day operations. This calls for a robust workforce of professionals who can analyze, understand, manipulate, and present data within an effective and repeatable process framework. In other words, the business world needs data science practitioners. This course will enable you to bring value to the business by putting data science concepts into practice. This course includes hands on activities for each topic area.

**This course includes an exam voucher.**

## Who Should Attend

This course is designed for business professionals who leverage data to address business issues. The typical student in this course will have several years of experience with computing technology, including some aptitude in computer programming.

## Course Objectives

- Use data science principles to address business issues.
- Apply the extract, transform, and load (ETL) process to prepare datasets.
- Use multiple techniques to analyze data and extract valuable insights.
- Design a machine learning approach to address business issues.
- Train, tune, and evaluate classification models.
- Train, tune, and evaluate regression and forecasting models.
- Train, tune, and evaluate clustering models.
- Finalize a data science project by presenting models to an audience, putting models into production, and monitoring model performance.

## Agenda

### 1 - ADDRESSING BUSINESS ISSUES WITH DATA SCIENCE

- Initiate a Data Science Project
- Formulate a Data Science Problem

### 2 - EXTRACTING, TRANSFORMING, AND LOADING DATA

- Extract Data
- Transform Data
- Load Data

### 3 - ANALYZING DATA

- Examine Data
- Explore the Underlying Distribution of Data
- Use Visualizations to Analyze Data
- Preprocess Data

### 4 - DESIGNING A MACHINE LEARNING APPROACH

- Identify Machine Learning Concepts
- Test a Hypothesis

### 5 - DEVELOPING CLASSIFICATION MODELS

- Train and Tune Classification Models
- Evaluate Classification Models

### 6 - DEVELOPING REGRESSION MODELS

- Train and Tune Regression Models
- Evaluate Regression Models

### 7 - DEVELOPING CLUSTERING MODELS

- Train and Tune Clustering Models

- Evaluate Clustering Models

## 8 - FINALIZING A DATA SCIENCE PROJECT

- Communicate Results to Stakeholders
- Demonstrate Models in a Web App
- Implement and Test Production Pipelines