

CN-CDSP

CERTIFIED DATA SCIENCE PRACTITIONER

Certified
**DATA SCIENCE
PRACTITIONER™**



DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
5 Days	Advance / Build	Data Science	Classroom or Virtual	NA

INTRODUCTION

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, but 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.

AUDIENCE PROFILE

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.

However, there is not necessarily a single organizational role that this course targets. A prospective student might be a programmer looking to expand their knowledge of how to guide business decisions by collecting, wrangling, analyzing, and manipulating data through code; or a data analyst with a background in applied math and statistics who wants to take their skills to the next level; or any number of other data-driven situations.

Ultimately, the target student is someone who wants to learn how to more effectively extract insights from their work and leverage that insight in addressing business issues, thereby bringing greater value to the business.

This course is also designed to assist students in preparing for the CertNexus® Certified Data Science Practitioner™ (CDSP) (Exam DSP-210) certification.

PREREQUISITES

To ensure your success in this course, you should have at least a high-level understanding of fundamental data science concepts, including, but not limited to: types of data, data science roles, the overall data science lifecycle, and the benefits and challenges of data science. You can obtain this level of knowledge by taking the CertNexus DSBIZ™ (Exam DSZ-210) course.

You should also have experience with high-level programming languages like Python. Being comfortable using fundamental Python data science libraries like NumPy and pandas is highly recommended. You can obtain this level of skills and knowledge by taking the Logical Operations course Using Data Science Tools in Python®.

In addition to programming, you should also have experience working with databases, including querying languages like SQL.

COURSE TOPICS

Lesson 1: Addressing Business Issues with Data Science

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

Lesson 2: Extracting, Transforming, and Loading Data

- Extract Data
- Transform Data
- Load Data

Lesson 3: Analyzing Data

Benefits of Data Science

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

Lesson 4: Designing a Machine Learning Approach

- Identify Machine Learning Concepts
- Identify Transformer-Based Deep Learning Concepts
- Test a Hypothesis

Lesson 5: Developing Classification Models

- Train and Tune Classification Models
- Evaluate Classification Models

Lesson 6: Developing Regression Models

- Train and Tune Regression Models
- Evaluate Regression Models

Lesson 7: Developing Clustering Models

- Topic A: Train and Tune Clustering Models
- Topic B: Evaluate Clustering Models

Lesson 8: Finalizing a Data Science Project

- Topic A: Communicate Results to Stakeholders
- Topic B: Demonstrate Models in a Web App
- Topic C: Implement and Test Production Pipelines

ASSOCIATED CERTIFICATIONS & EXAM

This associated exam (#DSP-210) will certify that the successful candidate has the knowledge, skills, and abilities required to answer questions by collecting, wrangling, and exploring data sets, applying statistical models and artificial intelligence algorithms, to extract and communicate knowledge and insights.

Upon completion of this course, delegates will receive an MIE attendance certificate.