APPLIED TECHNOLOGY ACADEMY

800.674.3550
Info@AppliedTechAc.com
AppliedTechnologyAcademy.com

CertNexus Certified Data Science Practitioner (CDSP) Training

CertNexus Authorized Training · Applied Technology Academy

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.

LEVEL	DURATION	EXPERIENCE	AVERAGE SALARY	LABS
Intermediate	**5 Days**	**2 years: Data Science**	**$116,000**	**Yes**

Course Outline

- **Lesson 1: Addressing Business Issues with Data Science**
  - Topic A: Initiate a Data Science Project
  - Topic B: Formulate a Data Science Problem
- **Lesson 2: Extracting, Transforming, and Loading Data**
  - Topic A: Extract Data
  - Topic B: Transform Data
  - Topic C: Load Data
- **Lesson 3: Analyzing Data**
  - Topic A: Examine Data
  - Topic B: Explore the Underlying Distribution of Data
  - Topic C: Use Visualizations to Analyze Data Topic D: Preprocess Data
- **Lesson 4: Designing a Machine Learning Approach**
  - Topic A: Identify Machine Learning Concepts
  - Topic B: Test a Hypothesis
- **Lesson 5: Developing Classification Models**
  - Topic A: Train and Tune Classification Models
  - Topic B: Evaluate Classification Models
- **Lesson 6: Developing Regression Models**
  - Topic A: Train and Tune Regression Models
  - Topic B: 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

Intended Audience

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-110) 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-110) course.

You should have 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. Several Logical Operations courses can help you attain this experience:

- Database Design: A Modern Approach
- SQL Querying: Fundamentals (Second Edition)
- SQL Querying: Advanced (Second Edition)

Follow-On Courses

- Next Level Python for Data Science
- Certified Artificial Intelligence Practitioner (CAIP)
- CompTIA DataX
- CertNexus Certified Ethical Emerging Technologist (CEET)

Course Objectives

In this course, you will implement data science techniques in order to address business issues. You will:

- 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.

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.