ITS Data Analytics

Category: AI, Data & Analytics | **Vendor:** Pearson

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Mentored

Certification: ITS Data Analytics

Course Overview

This Pearson CertPREP Data Analytics course provides a gentle introduction to the responsible collection and reporting of data, the concepts of data manipulation, data analytics, prediction from data, and data visualization. It aims to provide learners with an understanding of the fundamentals of data and to equip them with the skills necessary to manipulate, analyze, and visualize data using various information and communications technology tools. This course consists of lessons accompanied by videos to help learners achieve their learning goals. Upon completing this course, learners should be able to explain basic statistical terminology and data analytics concepts, manipulate simple data sets, make simple predictions from data, and explain insights from data using meaningful and appealing visualization. Overall, this course covers the entire data analysis process, from understanding the basic principles to reporting the results of data analysis. The knowledge and skills garnered by learners

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Who Should Attend

This course is designed to equip learners ®® interns, apprentices, and entry-level data analysts with the foundational knowledge and skills necessary to perform entry-level data manipulation, analysis, bvisualization, and communication. With the Data Analytics certificate, you could be considered for positions such as entry-level data analysts or researchers, data analytics apprentices or interns,operations research interns, market researchers, and business analysts.

Prerequisites & Entry Requirements

General Prerequisites:

Learners should have at least 150 hours of instruction or hands-on experience with using and managing data Critical thinking and problem-solving skills General knowledge of Microsoft Excel

Detailed Course Outline

Lesson 1: Data Basics

- Skill 1.1: Define the concept of data.
- Define data and information.
- Differentiate between data and information. ï‚§ Define statistics and its relation to data.
- Skill 1.2: Describe basic data variable types.
- Define variables.
- Identify different data types. ï‚§ Define type checking.
- Skill 1.3: Describe basic structures used in data analytics.
- Define tables.
- Define arrays. ï‚§ Define lists.
- Skill 1.4: Describe data categories.
- Differentiate between structured and unstructured data. ï‚§ Identify and use different types of data.

Lesson 2: Data Manipulation

- Skill 2.1: Import, store, and export data.
- Describe ETL processing.
- Perform ETL with relational data.
- Perform ETL with data stored in delimited files. ï‚§ Perform ETL with data stored in XML files.
- Perform ETL with data stored in JSON files.
- Skill 2.2: Clean data.
- Perform data cleaning common practices. ï‚§ Perform truncation.
- Describe data validation.
- Skill 2.3: Organize data.
- Describe data organization.
- Perform sorting.
- Perform filtering.
- Perform appending and slicing. ï‚§ Perform pivoting.
- Perform transposition.
- Skill 2.4: Aggregate data.

Describe the aggregation function.

- Use aggregation functions like COUNT, SUM, MIN, MAX, and AVG in SQL. ï‚§ Use GROUP BY and HAVING in SQL.

Lesson 3: Data Analysis

- Skill 3.1: Describe and differentiate between types of data analysis.
- Perform descriptive analysis.
- Perform diagnostic analysis.
- Perform predictive analysis.
- Perform prescriptive analysis. ï‚§ Perform hypothesis testing.
- Skill 3.2: Describe and differentiate between data aggregation and interpretation metrics.
- Define data aggregation and data interpretation. ï‚§ Define data interpretation.
- Describe data aggregation and interpretation metrics.
- Skill 3.3: Describe and differentiate between exploratory data analysis methods.
- Find relationships in a dataset. ï‚§ Identify outliers in a dataset.
- Drill a dataset.
- Mine a dataset.
- Skill 3.4: Evaluate and explain the results of data analyses.
- Perform a simple linear regression.
- Interpret the results of a simple linear regression. ï‚§ Use regression analysis for prediction.

Skill 3.5: Define and describe the role of artificial intelligence in data analysis.

- Define artificial intelligence, algorithm, machine learning, and deep learning.
- Discuss how machine learning algorithms help in data analysis.
- Discuss how artificial intelligence algorithms work in data analysis.

Lesson 4: Data Visualization and Communication

- Skill 4.1: Report data.
- Use tables and charts to display information. ï,§ Disaggregate data.
- Skill 4.2a and 4.3a: Create and derive conclusions from visualizations that compare one or more categories of data.
- Use different types of charts: ï,§ Column chart. ï,§ Bar chart.
- Skill 4.2b and 4.3b: Create and derive conclusions from visualizations that show how individual parts make up the whole.
- Differentiate between the following types of graphical representations: ï,§ Pie Chart.
- Donut Chart.
- Other variations on bar and column charts such as stacked bar and column charts.
- Skill 4.2c and 4.3c: Create and derive conclusions from visualizations that analyze trends.
- Use different types of visualization:
- Line chart and variants of the line chart. ï,§ Waterfall chart.
- Sankey Diagram.
- Skill 4.2d and 4.3d: Create and derive conclusions from visualizations that determine the distribution of data.
- Use different types of visualizations: ï,§ Histograms.

Box and Whisker plot.

- Skill 4.2e and 4.3e: Create and derive conclusions from visualizations that analyze the relationship between sets of values.

- Use different types of visualizations:

- Scatter plot.

- Bubble chart.

Lesson 5: Responsible Analytics Practice

- Skill 5.1: Describe data privacy laws and best practices: ï‚§ Describe the fair information practice principles.

- Understand data privacy laws in the US.

- Understand data privacy laws in Canada. ï‚§ Understand data privacy laws in the EU.

- Skill 5.2: Describe best practices for responsible data handling: ï‚§ Handle PII, secure data, and protect anonymity within small datasets. ï‚§ Balance the trade-off between interpretability and accuracy. ï‚§ Generalize from a sample to a population.

- Skill 5.3: Given a scenario, describe the types of bias that affect the collection and interpretation of data.

- Explain and identify different types of bias that affect the gathering of data.

Additional Course Details

Nexus Humans ITS Data Analytics training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward. This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the ITS Data Analytics course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for ITS Data Analytics?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The ITS Data Analytics course helps prepare you for the ITS Data Analytics certification path.

Q: How many CPD hours does this course provide?

The 3-day ITS Data Analytics course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the ITS Data Analytics training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for ITS Data Analytics?

Yes, we provide corporate training, dedicated training, and closed classes for ITS Data Analytics. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for ITS Data Analytics?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your ITS Data Analytics training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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