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## Big Data Scientist

**Cursusduur: 4 Dagen**    **Cursuscode: BDS**

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### Beschrijving:

Deze 4-daagse Big Data Scientist cursus is een vervolg op de cursus Big Data Fundamentals (BDF) en bestaat uit 4 modules. Na elke module kan men het bijbehorende examen doen. Indien alle examens positief worden afgesloten is de deelnemer Certified Big Data Scientist. De cursus wordt in 4 blokken van 1 dag gepland, verdeeld over ongeveer 4 weken.

De modules zijn onderdeel van het Big Data Science Certified Professional (BDSCP) curriculum van Arcitura Education. Het Big Data Science Certified Professional (BDSCP) programma van Arcitura is gericht op excellentie op het gebied van Big Data wetenschap, analyse, analytics, business intelligence, en technologie-architectuur, evenals ontwerp, ontwikkeling en governance.

This 4-day Big Data Scientist course is a continuation of the Big Data Fundamentals (BDF) course and consists of 4 modules. After each module the participant can take the corresponding exam. If all exams are passed, the participant will be Certified Big Data Scientist. The course is scheduled in 4 blocks of 1 day, spread over approximately 4 weeks.

The modules are part of the Big Data Science Certified Professional (BDSCP) curriculum of Arcitura Education. The Big Data Science Certified Professional (BDSCP) program from Arcitura is dedicated to excellence in the fields of Big Data science, analysis, analytics, business intelligence, and technology architecture, as well as design, development, and governance.

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### Doelgroep:

Deze cursus is bedoeld voor iedereen die na het volgen van de cursus Big Data Fundamentals tot de conclusie is gekomen dat zij of hij meer inzicht wil of moet verkrijgen in het vakgebied Big Data.

In deze cursus ligt het accent meer op kennisverbreding dan op kennisverdieping; de deelnemers worden niet opgeleid tot specialist maar tot generalist. Overzicht verkrijgen is belangrijk, want wie dat overzicht mist kan niet op een succesvolle manier deel uitmaken van een Big Data team.

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### Vereiste kennis en vaardigheden:

BDF, Big Data Fundamentals

### Examens en certificering

Deze cursus bestaat uit 4 modules. Elke module kan worden afgesloten met een examen. De examens zijn optioneel en zijn niet bij de prijs inbegrepen.

Indien u de 4 examens wil maken dient u dit vooraf aan te geven. De prijs per examen bedraagt: EUR 200,00

Het betreft de volgende 4 examens (via Pearson Vue) van Arcitura Education:

- B90.02, Big Data Analysis & Technology Concepts
  - B90.04, Fundamentals Big Data Analysis & Science
  - B90.05, Advanced Big Data Analysis & Science
  - B90.06, Big Data Analysis & Science Lab
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## Cursusinhoud:

### Module 1: Big Data Analysis ; Technology Concepts

- Big Data Analysis Lifecycle (from business case evaluation to data analysis and visualization)
- A/B Testing, Correlation
- Regression, Heat Maps
- Time Series Analysis
- Network Analysis
- Spatial Data Analysis
- Classification, Clustering
- Outlier Detection
- Filtering (including collaborative filtering ; content-based filtering)
- Natural Language Processing
- Sentiment Analysis, Text Analytics
- File Systems ; Distributed File Systems, NoSQL
- Distributed ; Parallel Data Processing,
- Processing Workloads, Clusters
- Cloud Computing ; Big Data
- Foundational Big Data Technology Mechanisms

### Module 2: Fundamentals Big Data Analysis ; Science

- Data Science, Data Mining ; Data Modeling
- Big Data Dataset Categories
- Exploratory Data Analysis (EDA) (including numerical summaries, rules ; data reduction)
- EDA analysis types (including univariate, bivariate ; multivariate)
- Essential Statistics (including variable categories ; relevant mathematics)
- Statistics Analysis (including descriptive, inferential, correlation, covariance ; hypothesis testing)
- Data Munging ; Machine Learning
- Variables ; Basic Mathematical Notations
- Statistical Measures ; Statistical Inference
- Distributions ; Data Processing Techniques
- Data Discretization, Binning, Clustering
- Visualization Techniques ; Numerical Summaries
- Correlation for Big Data
- Time Series Analysis for Big Data

### Module 3: Advanced Big Data Analysis ; Science

- Statistical Models, Model Evaluation Measures (including cross-validation, bias-variance, confusion matrix ; f-score)
- Machine Learning Algorithms, Pattern Identification (including association rules ; apriori algorithm)
- Advanced Statistical Techniques (including parametric vs. non-parametric, clustering vs. non-clustering distance-based, supervised vs. semi-supervised)
- Linear Regression ; Logistic Regression for Big Data
- Decision Trees for Big Data
- Classification Rules for Big Data
- K Nearest Neighbor (kNN) for Big Data
- Naïve Bayes for Big Data
- Association Rules for Big Data
- K-means for Big Data
- Text Analytics for Big Data
- Outlier Detection for Big Data

### Module 4: Big Data Analysis ; Science lab

This course module covers a series of exercises and problems designed to test the participant's ability to apply knowledge of topics covered previously in course modules 4 and 5. Completing this lab will help highlight areas that require further attention, and will further prove hands-on proficiency in Big Data analysis and science practices as they are applied and combined to solve real-world problems.

As a hands-on lab, this course incorporates a set of detailed exercises that require participants to solve various inter-related problems, with the goal of fostering a comprehensive understanding of how different data analysis techniques can be applied to solve problems in Big Data environments and used to make significant, relevant predictions that offer increased business value.

## Extra informatie:

De cursus is voornamelijk theoretisch, abstract en vendor-neutraal. Afgezien van Excel wordt er verder geen specifieke software gebruikt. Wel is het wenselijk als u uw Windows laptop mee neemt naar de cursus t.b.v de oefeningen.

## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

[info@globalknowledge.nl](mailto:info@globalknowledge.nl)

[www.globalknowledge.com/nl-nl/](http://www.globalknowledge.com/nl-nl/)

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