



Data Science Essentials

The demand for data science talent is growing enormously. If you are working as a business professional and you are ambitious to dive into data science, this hands-on course might be your stepping stone towards becoming a starting data scientist.

This 8-day course will be lectured by university lecturers and experts from practice. The experts have been conducting data science projects for multiple years and have a wide range of practical experiences. They will share their best practices with you and warn you about the pitfalls of data science projects.

The goal of the course is to teach participants the practical and hands-on skills to conduct data science projects. We mainly focus on the practical and 'hard' skills like programming, statistics and machine learning, but will pay attention to the necessary soft skills as well. You will learn the key concepts for working with data and analytics techniques and grow the skills to efficiently run data science projects to answer the key questions of your business.

Course outline

- Day 1. Introduction to Data Science & Python programming
- Day 2. Statistics for data science
- Day 3. Data preprocessing, exploratory data analysis & visualisation
- Day 4. Determining the right business question & running data science projects
- Day 5. Machine learning
- Day 6. Model performance, selection and tuning
- Day 7: Prescriptive analytics, operations research and optimisation
- Day 8: Hackathon: show off your skills!

Facts & Figures

Dates	Thursday 7 and Friday 8 November 2019 Thursday 5 and Friday 6 December 2019 Thursday 30 and Friday 31 January 2020 Thursday 5 and Friday 6 March 2020
Schedule	9:00 - 17:00
Location	Amsterdam Business School
Fee	€ 6,500 (fee is VAT-free) UvA alumni receive 10% discount.
Language	English
PE-hours	56

How will this course benefit your career?

- You can apply data science to tackle business questions.
- You will gain the ability to quickly get first insights in your data.
- You will learn how to clean and preprocess data for subsequent analyses.
- You will be able to conduct statistically valid analyses.
- You will learn how to effectively visualise data with the latest tooling.
- You will know how to build advanced predictive models to optimise your business processes.
- You can apply all of the above with the leading open-source data science programming language: Python.

Hackathon

On the last day of the course we organise a hackathon, in which participants can showcase their freshly acquired skills. We share a business case and dataset, and challenge the participants to go through all stages of a data science project.

Certification

After completion of the course you will receive a Certificate of Attendance of the University of Amsterdam. For accountants, controllers and auditors, the course will provide 56 PE-hours.



Participant profile and entry requirements

This course is for business professionals who perform analyses of any form on data on a daily basis. The content is especially tailored to people who seek to get more from their data. A technical background or profound affinity is a prerequisite, since you will be learning a programming language and will be developing competences in advanced statistics. If you are not sure if your background fits the course, please contact us via executive-education@uva.nl.

Relevant industries

Basically all industries that want to get more value and insights from their data. Including but not limited to: Banks, Insurance Firms, Financial Institutions, Tax, Institutional Investors, Accountancy, Auditing, Consultancy, Services, Government, Energy, Telecom, IT, Internet, Marketing and Communication, Event Management, Logistics, Retail, Trade, Consumer Products, Freight, Healthcare and Pharmaceutical.

Relevant job titles: Engineer, Auditor, Controller, Information Manager, Project Manager, Operations Manager, IT-architect, Digital Marketeer, Data Analyst, Product Developer, IT Process Manager, Risk Manager, Business Analyst, Business Information Analyst, Market Researcher, Manager Customer Intelligence, Business Intelligence Specialist, Consultant or Analyst, Quantitative Analyst, Operations Analyst, Supply Chain Analyst, Marketing Analyst, Database Marketeer, Engineers, Reporting Analyst, Online Marketeer, Sales Analyst, Planner and Process Analyst.

Registration

You can register for this course via abs.uva.nl/data-science-essentials.

You will be asked to bring your own laptop, since the course is very hands-on. Approximately 50% of the time you will be making exercises or programming, applying the theoretical contents in a practical manner.

Furthermore you'll be challenged to apply the gained theory and skills on your own company cases and data, during the periods in between the lecture days.

Contact

If you have any questions regarding this course or if you are not sure if your background fits the course, please contact:

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The Analytics Academy



Collaboration

This course is organised by The Analytics Academy, the collaboration between Amsterdam Data Science, ORTEC and the Amsterdam Business School of the University of Amsterdam. To meet the market demands for trained data scientists and business analysts these three partners started The Analytics Academy in 2015. The three founding partners of the academy bring a vast experience in data science education, for audiences ranging from senior management to hands-on data scientists in a wide variety of sectors and industries, including transport and logistics, energy, retail, ICT and healthcare.

Besides open programmes, The Analytics Academy develops tailored in-company training programmes on Data Science. Through offering a broad range of Data Science trainings, The Analytics Academy helps organisations to grow and sustain knowledge at each stage of the data driven transformation. Our trainings go through all layers of the organisation and range from creating basic understanding at board level in order to develop a data strategy to acquiring hands-on skills enabling your staff to deliver value in data oriented projects. Unique benefit of our partnership for our clients, is the ability to combine tailored classroom training with on-the-job coaching leading to better adoption and implementation of the capabilities within the organisation. If you are interested in what The Analytics Academy can do to help your team get data-driven, please contact us via executive-education@uva.nl or call Robert Monné +31 (0)6 15 29 13 11.

University of Amsterdam

Amsterdam Business School

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