<

Data Analytics Course

Remote I Part Time

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Course Overview

Data is everywhere, and we are part of the digital transformation of data. But this digital transformation can only deliver its full potential when we harness the power of the data that these innovations release.

Today's data revolution is not only driven by the vast and consistently growing amount of data; it is fueled by different technologies that are changing the way we collect, store, analyze, and transform this information. Together, these drivers allow us to gain a clear and powerful insight into the depth of data and thus extract new knowledge, discover new connections, and make new predictions. In this Data Analysis course, we will address the fundamentals of data analysis together with the key steps in transforming data into answers.

In just 10 weeks, you will have a solid foundation and knowledge of how to manage data and get the most out of it effectively. You will learn about programming, data mining, data analysis, and powerful visualization of data and create a human-centric Data solution as your personal project.

- ❏ 100 hours I 10 weeks course I Part Time
- ❏ Flexible Learning Environment
- ❏ 100% hands-on
- ❏ Women-only environment
- ❏ Suitable for professional upskilling

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Flexible Learning Environment

Remote Learning makes more sense than ever as tech companies are global and very often teams are delocalized in order to have access to the best talent. Learning remotely is a very valuable experience and good practice for the new remote status quo.

Join us on campus if you want to, whenever you want to! Enjoy our Flexible Learning Environment, online or with us in sunny Barcelona.

Remote Methodologies

- ❑ Day Zero: to introduce you to the complete remote methodology, meet your instructor, and your peers.
- ❑ Stand up: to share your current status, blocks, and next steps.
- ❑ Group Q&A: to solve any doubts from the last session.
- ❑ Individual Mentorship: with your instructor via hangouts and/or slack.
- ❑ Daily masterclass by your instructor.
- ❑ Recorded Classes.
- ❑ Weekly retrospective.

Remote Tools

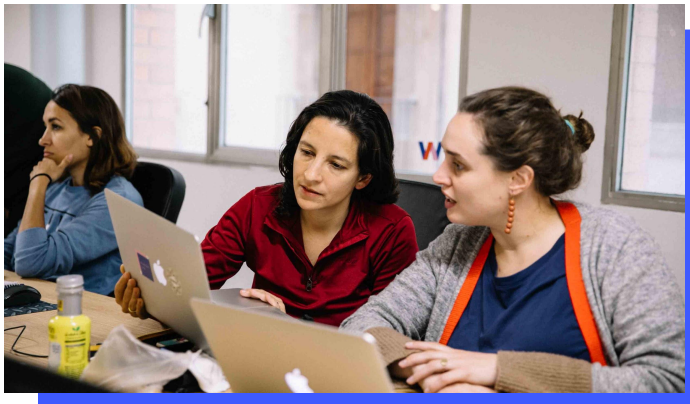
- ❑ Slack: for instant and fluid communication.
- ❑ Hangouts Meet: for professional video-conference and recording.
- ❑ Miro: for collaborative mind maps and brainstorms.
- ❑ Mural: for digital whiteboard.
- ❑ Classroom: for content, calendar, and assignments in the cloud.

Who is this for

Career boosters: Women who are established in their professional career and want add-on skills to bump-up to the next level by adding Data understanding and Data design to their resume in a more efficient way.

Suitable for: Any women with a professional profile that deals with data, such as: business, marketing, logistics… This course will be an ideal complement to your work if you manage data and want to add a tech layer to your current job by being more efficient and robust.

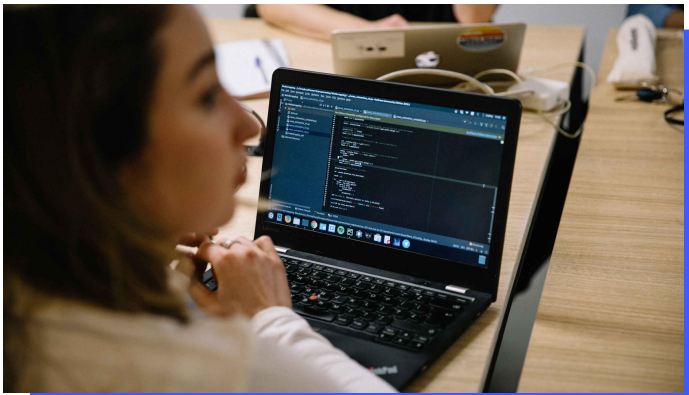
Requirements: No previous experience or knowledge in programming is necessary, we will provide all of the necessary information during the course. We will provide you with pre-work before starting the course so that you are prepared. You can always talk to our admissions lead, and she will assess you for this course.



Learning Objectives

This course trains you to apply in any of the following job titles:
Data Analyst, Business Analyst and Business Intelligence.

- ❏ Program in Python;
- ❏ Usage of the scientific method;
- ❏ The key steps of transforming data into answers (data exploration, preprocessing, data cleaning, and feature engineering);
- ❏ Hands-on Data Mining;
- ❏ Think critically about data and draw conclusions based on your analysis;
- ❏ Smart visualization to transform data into information;
- ❏ Grasp an understanding of the most commonly used tools in the Industry;
- ❏ and learn how to use them to support your needs.



Professional Objectives

Overcome the fear of programming and prove to yourself that you can do anything if you put in the time and effort:

- ❏ Better understand data and data analysis and the opportunities they offer;
- ❏ Create a personal project using the tools and skills that you will be learning during the course;
- ❏ Defend your results, findings, and next-steps recommendations in front of an audience;
- ❏ Work as an individual to accomplish your personal goals and share your knowledge by working in a team with other motivated and ambitious women like you.

Skills Building

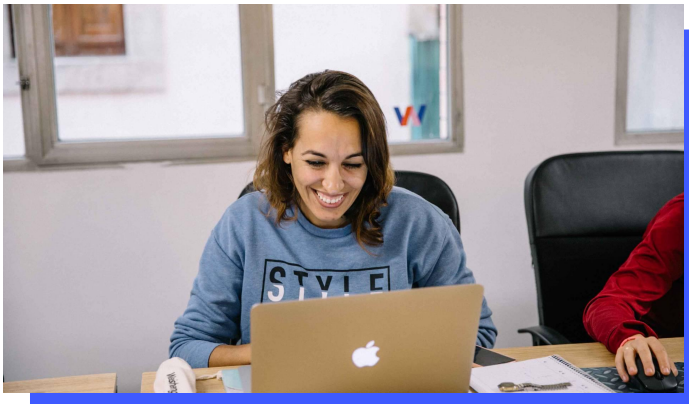
Technical and Soft Skills of a Data Analyst that you will develop in this course:

Technical Skills:

- ❏ Program in Python
- ❏ Usage of the scientific method
- ❏ Data Mining
- ❏ The key steps in transforming data into answers
- ❏ Think critically about data and draw conclusions based on your analysis

Soft Skills:

- ❏ Leadership and Professional development
- ❏ Teamwork and collaboration
- ❏ Public Speaking and Oral Communication
- ❏ Time Management
- ❏ Skepticism
- ❏ Creativity



Course Structure

Course Structure

Pre-work (10 hours) of work preparation:

We want you all to be on the same page from the first day of the program.
To do this, we will give you some courses regarding Python, in which you will learn the basics about this programming language alongside some plotting libraries.

- ❏ Python basics,
- ❏ Python data types,
- ❏ Basic data visualization with Python

Unit 1 - What is Python?

Programming with Python

- ❏ Python modules and libraries
- ❏ Functional Programming
- ❏ Object Oriented Programming
- ❏ Deal with Pandas library

Data structure

- ❏ Different types of data files (.csv, .json, .html…)
- ❏ Types of variables in your dataset (categorical, numerical…)

What will you have learned by the end of the unit ?

- ❏ What is Python
- ❏ The logic behind any programming language
- ❏ Which type of variables are the most commonly used

Course Structure

Unit 2 - Learn statistics and probability

Project design & the role of statistics

- ❏ Outlier detection by using quartiles and percentiles

Probability theory to judge our observations

- ❏ Frequentist approach

Critical thinking using hypothesis testing

- ❏ Frequentist approach

Tell a story with your KPIs and a dashboard

- ❏ Create a dashboard with visualization tools
- ❏ Create a dashboard with Python - Visualization libraries.

What will you have learned by the end of the unit ?

- ❏ How to use hypothesis tests
- ❏ The importance of uncertainty and probability
- ❏ Create a dashboard with powerful visualizations

Course Structure

Units 3 & 4 - Meet, analyse and explore the data

Exploratory Data Analysis (EDA)

- ❏ Descriptive statistics
- ❏ Univariate analysis
- ❏ Bivariate analysis

Feature Engineering

- ❏ Data Cleaning
- ❏ Data Transformations
- ❏ Missing Values
- ❏ Remove Outliers

Scientific Method in Data Science

What will you have learned by the end of the units ?

- ❏ Why we need descriptive statistics
- ❏ Why we need to clean our dataset
- ❏ How to analyze each variable
- ❏ How to analyze relations between two variables

Course Structure

Unit 5 - Find patterns in your data by using Machine Learning

Introduction to Machine Learning

Unsupervised Machine Learning algorithms

- Find hidden patterns or clusters in unlabelled data
- Model building:
  - K-means
  - Hierarchical Clustering: Agglomerative and Divisive
  - Principal Component Analysis (PCA)

Visualization and interpretation of the outcomes from those algorithms.

What will you have learned by the end of the unit ?

- How to use unsupervised algorithms to complement the initial Exploratory Data Analysis
- How to find hidden patterns in your dataset

Course Structure

Units 1 - 5 - Build your own final and personal project

Each Friday, you will have time to put into practice what you have learned and work on your own personal project.

Build your personal project

- ❏ Project Design
- ❏ Project Management tools
- ❏ Common mistakes

What will you have learned by the end of the course ?

- ❏ How to define a business problem from a data science perspective
- ❏ How to apply the scientific methodology to a real project
- ❏ How to combine all the different aspects covered in the previous weeks in order to extract the relevant KPIs
- ❏ How to deliver and present a data science project taking into account the data science view

Career and Learning Experience

Career development

Our mission is to bring more women into the tech field, that's why we are committed to the careers of our graduates.

During the course, you will attend a workshop dedicated to career opportunities within the data field and, at the end, you will have an individual mentorship session with our data oriented career expert.

You will also present your final project at the Demo Day and participate at our international and remote Hiring Day.

Hiring & Demo Day

Career Assessment

Networking Opportunities

Hiring Partners (selected few):

How you will learn with us

80% practical. 20% theory. Each week covers a different aspect of Data Analytics, concluding in a project presentation of the learnings at the end of the course.

This is what a typical week looks like:

Tuesday & Thursday (18:30 - 21:30 CET)*

- ❏ 18.30 - 18.45 Refresh of the concepts from the previous class
- ❏ 18.45 - 19.45 Lecture
- ❏ 19.45 - 20.30 Notebook time! Putting into practise the concepts learned
- ❏ 20.30 - 21.30 Hands-on practice! Your turn

Saturday (10:00 - 14:00 CET)

- ❏ 10.00 - 10.30 Refresh of the concepts from the week
- ❏ 10.30 - 11.00 Stand-up meeting
- ❏ 11.00 - 13.30 Project Work + Individual Mentoring
- ❏ 13.30 - 14.00 Weekly Retrospective

*If you have a different schedule preference, please let us know, since we try to accommodate different groups.

Useful Information

Take the next step

Here are the steps for completing our admissions process:

1. Submit the application form.
2. You will receive an email from us to book a call with our admissions manager.
3. Attend a personal interview with us.
4. Pay the tuition fee and sign the contract. Financial options are available, ask us for more information.
5. Access the pre-work and prepare yourself for the course. Submit it before the starting date of class.
6. If you are still not sure, come to one of our on campus or online informative sessions. You can access the calendar here.

Dates & Tuition Fee

Dates & Schedule

10 weeks part time
❏ Mondays and Wednesdays from 6.30pm to 9.30pm CET ❏ Saturdays from 10.00am to 2.00pm CET ❏ Ask us for the exact dates

Tuition Fee and Financing

Full Tuition	One-time Payment	Early Registration
2950€	**2700€** *save 250€ when paid in full	**2450€** *save 500€ when paid in full

Installment Plans & Sponsorships

Pay in 6 installments of:	Pay in 6 installments + Early Registration:	**Employer Sponsorship**
333€/month +Payment of 950€ upfront	**292€/month** +Payment of 950€ upfront.	We can help you get financial support from your company with our consultant. Ask us for more information!

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Shaping the futures of women in technology

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