SPICED

Program Curriculum

Data Analytics

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I felt stagnant and wanted something new. That's when I found SPICED.

Christelle
Now working as a Data Analyst in Hamburg

SPICED

Hallo! 👋

Everyone has to start somewhere.

For us, it started in Berlin with a simple idea. To propel highly motivated people into the careers they want, through expert-led and meticulously curated tech courses.

We don't just teach the latest technologies, though.

Spiced is an attitude. It's a community and a melting pot. It's a place where you can meet and connect with people that could change the trajectory of your life. Those who help you develop professionally and personally. From your cohort and beyond.

It takes guts to do what you're doing. No-one's born a genius - it's going to take hard work and dedication to get where you're going.

We're here with you, every step of the way 🚀

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Your fast track to Data Analytics.

With more jobs than ever requiring data skills, our Data Analytics course will get you career-ready in a way that you're ready for.

For novices that want to go to the next level, you'll go from writing a single line up to telling compelling stories with your data. You'll get to grips with Python, pandas, data visualization and dashboards, databases and SQL, and more.

The program is built around a real-world projects, meaning you'll be getting hands-on from day one.

On top of all that, you'll get career coaching - including CV advice, job search techniques, technical interview coaching and much more.

My time at SPICED was amazing! And I'm a person with no IT background. I can't believe the things I can do with different softwares since the day I started the bootcamp!

George Skendras
From Nurse to Data Analyst

There's no online course that compares with the experience and knowledge you'll gain at SPICED! I have a deeper understanding of the Data Analytics world, and the possibilities for my career.

Diana Pérez de Castro
From Product Owner to Data Analyst

If you have passion for data, finding trends and telling stories, then this is the perfect course for you!

Christelle Peig-Dettmann
From Finance to Business Improvement

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Before the Course

(40 Hours)

Before the course you'll be required to pass a short assessment. Nothing to sweat about, we just want to see how you are with basic concepts that will be important for your success in the course.

Upon successful completion of the assessment, you'll be sent some Python-based prep work to get you ready for the on-site portion of the program.

What You'll Learn

(18 Weeks)

● **Phase 1**

Kick off your data analytics journey by meeting your cohort and building connections in a supportive and collaborative environment. Explore the role and responsibilities of a data analyst, get an inside look at the key tools of the trade, and gain a clear understanding of what's ahead in the bootcamp. This is where your transformation begins.

Important Topics

● Skills

● Tools

● Roles

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Phase 2

Dive into the world of descriptive statistics and discover why they're a cornerstone for any data analyst, helping you make sense of large datasets with clarity. Learn to harness the power of Google Sheets, pick up expert tips for creating impactful presentations, and master problem-solving techniques guided by our experienced coaches.

Important Topics

- Spreadsheets
- Statistics
- Problem Solving
- Presentations

Phase 3

Get your system ready to dive into coding! Together, we'll set up your environment, including Python in a conda environment, and get hands-on with the command line. You'll explore Python syntax, work with variables, data types, loops, conditional statements, and functions—all while coding in an Integrated Development Environment (IDE). By the end, you'll not only understand pseudocode but also write your first simple program.

Important Topics

- Unix
- Python
- Coding

Phase 4

Step into the world of exploratory data analysis (EDA) and learn how to collect, clean, and expand datasets with confidence. You'll combine datasets, handle missing values, and uncover valuable insights. Discover the power of Key Performance Indicators (KPIs) while visualizing data like a pro using Matplotlib and Seaborn.

Important Topics

- Pandas
- KPIs
- Visualization
- matplolib

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Phase 5

You'll move from describing data to making data-driven decisions. Learn probability distributions, confidence intervals, and hypothesis testing—including A/B testing for product and marketing. Apply clustering to uncover patterns and use linear regression to model relationships. Through real-world examples and hands-on practice, you'll build the statistical skills needed to analyze and solve business problems with confidence.

Phase 6

Get Tableau certified and build job-ready skills from scratch. Learn to prep data, create visuals, and design dashboards, then tackle advanced tools like LOD expressions and table calculations. With hands-on practice and a strong portfolio, you'll be ready to pass the Tableau exams and use it confidently on the job.

Phase 7

Use API keys to connect to APIs, automate multiple calls with different parameters, and execute SQL queries from Python. You'll also practice reading documentation to understand limits and formats. We'll teach you to access and extract data from JSON files. Finally, you'll apply your skills in a project, using agile tools to organize and manage your work—just like you will in the job.

Important Topics

- Distributions
- Confidence Intervals
- A/B Testing
- Linear Regression

Important Topics

- Visualization
- Tableau
- Dashboards
- Seaborn

Important Topics

- APIs
- SQL
- Datapipeline

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Phase 8

In this final phase, you'll learn how to connect to data and explore it using Tableau. You'll master filtering, grouping, calculating fields, and using parameters. By the end of the bootcamp, LODs, table calculations, and creating interactive dashboards will be essential skills in your toolkit.

Important Topics

- Visualization
- Tableau
- Dashboards

Phase 9

We believe the best way to solidify your learning is through hands-on application. In this phase, you'll bring all your knowledge together in your digital graduation project.

Important Topics

- Graduation project
- Stakeholders
- Data

The curricula presented here are intended as a guide to the course content. We expressly reserve the right to make adjustments to the content and structure for didactic and organisational reasons, and to adapt the course to reflect the state of the art and current labour market requirements, without affecting the character of the course and the overall quality of the content.

Tech Stack

Programming & Database

Python
- Intro to Python
- Pandas
- Scikit-Learn

Visualization
- Best visualization practices
- Matplotlib
- Seaborn
- Plotly

Web Application
- Dash

SQL
- Postgres
- Data Modelling
- Import/Export
- CRUD
- Advanced SQL (Window Functions, CTE)

Git(Github)

Google Cloud Platform

Exploratory Data Analysis (EDA) & Statistics

Data Cleansing
Data Wrangling
Descriptive Statistics

Explanatory Data Analysis

Inferential Statistics (Normal Distribution, Probability Distributions, CI)
AB Testing
Data Ethics

Applied Statistics & Modeling
- Distributions
- Confidence Intervals
- Hypothesis Testing
- A/B Testing
- Clustering
- Linear Regression
- stastmodels

Machine Learning Algorithms

Supervised Machine Learning
- Linear Regression

Unsupervised Machine Learning
- Clustering

Analytical Engineering

APIs
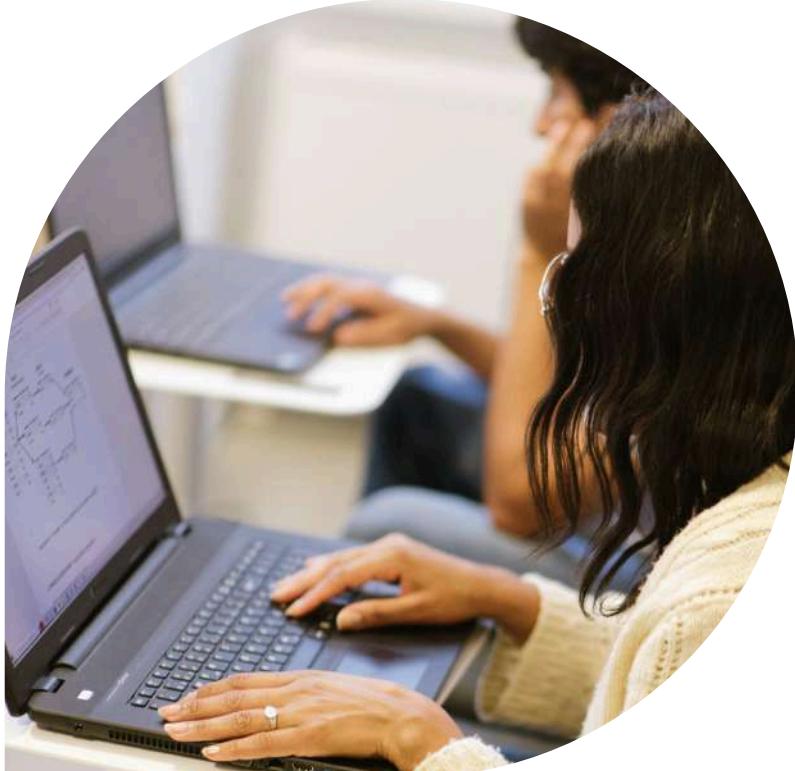
Dbt
- Stages
- Datamarts

Business Intelligence

Tableau
- Visualization Types
- Dashboards & Stories
- Table Calculations
- Parameters & Calculated Fields
- Level of Detailed Expressions
- Sets & Multiple Data sources

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Your day at SPICED

8:30 am — Campus opens for you to come by and start your project work

10:00 am — Morning encounter followed by supervised project work

12:00 pm — Lunch

1:30 pm — Afternoon encounter followed by supervised project work

6:30 pm — Campus closes for the day. Time to go home and get some well deserved rest! 😴

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"Most importantly, Spiced feels like a family. When you're working 8–10 hours a day surrounded by the same people, it's good to have a supportive work environment and atmosphere."

Olof Reimegard
now working @ Zaplox

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Where practical meets personal

Our Career Services

Through our Learning Management System (LMS), you'll receive career tips and support from the preparation of application documents to job search strategy and personal branding - all from a single source!
Our expert Career Coaches help you excel at real-world interviews, and build your communication skills, critical thinking, teamwork and empathy. 💪

- **Job interview workshops**
- **Strategies for changing jobs and career paths**
- **Salary negotiations**
- **Career Cupid: networking event with companies,**
- **Alumni "Ask me anything" sessions**
- **Recruiter "Ask me anything" sessions**
- **Expert panels and Q&A**
- **Career roadmap for international students**

Phase 1

Identifying your skills

Phase 2

Understanding the Job Market

Phase 3

Tips for starting your new job

Phase 4

Networking

Career Opportunities

Marketing Analyst   Business Analyst

Reporting Analyst   Data Consultant

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Community

Community rules at SPICED - after all, there's more to life than studying! For those in Berlin, we hold regular get-togethers with pizza and drinks in our beautiful campus so you can share ideas, grab a coffee, and generally unwind among fellow hungry minds.

We pride ourselves on our international culture and provide a supportive environment to both students and staff. If you need help with your code or a chat, we try to make sure there's always someone on hand for a quick Zoom, or a sit down.

Oh, and Friday drinks can be the stuff of *legend*.

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Our Campus

Welcome to Kreuzberg. Home to SO36 punks, döners and the loveable rogues of Spiced-World. Just at our doorstep you'll find a world of cuisine, upscale cocktail joints, downtrodden kneipes, and cafes ranging from artisanal to hole-in-the-wall.

We love hosting tech events and bringing our ever-growing network to campus and online for workshops and talks. Even after you've graduated, there's an open invite to our events - once a Spicedling, always a Spicedling.

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Thank you

For more information, please get in touch
info@spiced-academy.com