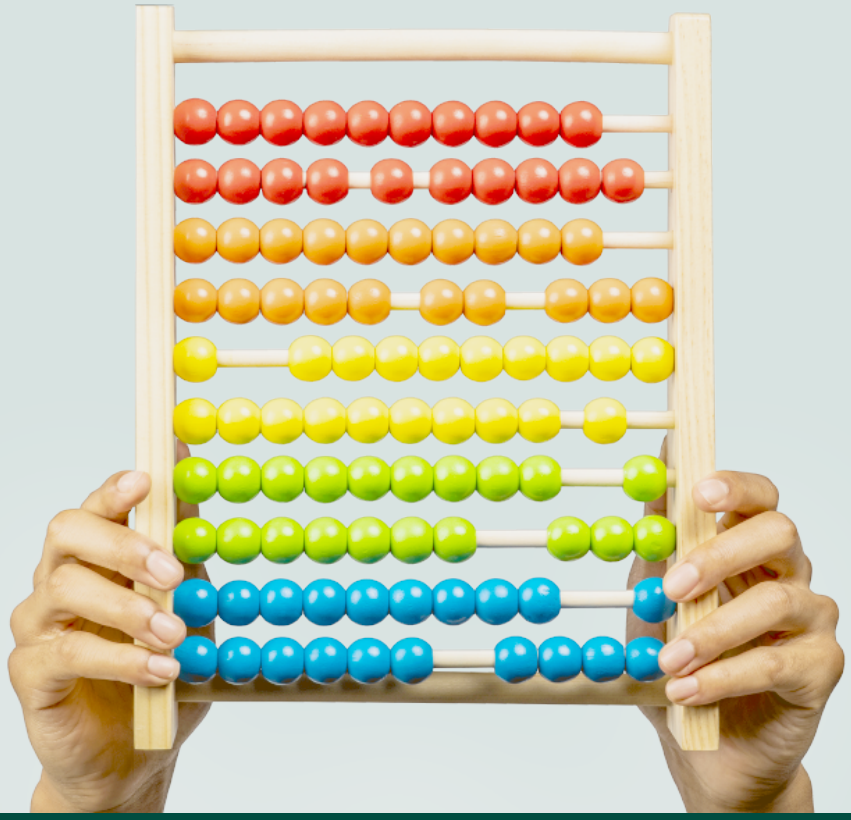
Data



Data Analyst

Personal mentor Bachelor's-level diploma *

Analyze data and model phenomena with realistic business cases. Start your career in Data Science now!

TRAINING PERIOD

12 months of full-time study

24 months in apprenticeship**

PATH DURATION:

580 hours supervised

OPENCLASSROOMS

This training program requires an estimated time commitment of 1160 hours: 580 hours of supervised training (projects coached by mentors) and 580 hours of guided training (courses and educational resources). In apprenticeship, the total training duration does not include the time spent at the company.
The training period can be extended in the case of part time training. This estimated average duration depends on the student entry level into training, their time allocated per week, their availability, their capacity, and learning pace.

*Data Analyst - code NSF 326 - Bachelor's-level diploma - certification professionnelle enregistrée au Répertoire National des Certifications Professionnelles (RNCP) par décision de France compétences publiée le 10/13/20

** Check training program eligibility based on the contract type (professional training contract or apprenticeship contract)

Training program last updated on Oct 29, 2024

Here at OpenClassrooms, we focus on high-demand roles, reverse-engineering our curriculum based on the skills needed to perform on the job.

We've built **this one-year, bachelor's-level diploma program in data analysis** to enable our students to develop their careers in the growing data sector. This program is taught entirely online with one-on-one, weekly sessions with a dedicated mentor.

What will I do as a Data Analyst?

A Data Analyst's job is to **analyze data** and **transform it into highly valuable metrics for a company.** They are responsible for both **data collection** and **data processing** as well as guaranteeing data integrity.

A Data Analyst reports the results to various departments in the company. Therefore, a Data Analyst will need to develop **communication and reporting skills** to support decision-making processes.

A data analyst's responsibilities are diverse. They include:

- Gathering data: standardizing it while maintaining its integrity.
- Interpreting data: identifying trends and helping others make sense of it.
- Presenting data: creating dashboards, visualizations, and written reports.
- Analyzing data: supporting decision-making to improve the company's strategy.

How much will I earn?

Here is what you can expect to earn in your career as a Data Analyst:

US Income Estimates:

- Beginner: $60,000 to $70,000 per year
- Senior: $70,000 to $100,000 per year

UK Income Estimates:

- Beginner: £22,000 to £30,000 per year
- Senior: £30,000 to £48,000 per year

(source: glassdoor.com)

Roles in data analysis are in high demand for full-time employment. Freelance Data Analysts have charged up to $500 or £400 per day of work.

What are my job prospects?

Companies around the world are looking for Data Analysts both in start-ups and in large enterprises.

This program will prepare you for the following careers:

- Data Analyst (6,000+ jobs on Indeed.com)
- Marketing Analyst (10,000+ jobs on Indeed.com)
- Business Intelligence Analyst (5,000+ jobs on Indeed.com)

With these roles, there is a high level of career mobility. After a few years of practice, you could become a **Data Scientist**! You'll be able to create custom algorithms and dig further into mathematical models.

Who is eligible to enroll?

To be eligible to earn this path's diploma, candidates must demonstrate proof of one of the following prerequisites:

- an associate's degree, or equivalent, in economics, finance, sales, marketing, software development or STEM.
- **or** a high school/secondary school degree, vocational certificate, or equivalent, and at least 2 years of professional experience in economics, finance, sales, marketing, software development or STEM.

All other candidates will need to go through a specific admissions process:

- demonstrate proof of an associate's degree, or equivalent, and at least 1 year of professional experience.
- **or,** demonstrate proof of a high school/secondary school degree, vocational certificate, or equivalent, and and at least 3 years of professional experience.

- **and** completed placement test consisting of :
    - Taking OpenClassrooms courses: Destination AI: Introduction to Artificial Intelligence *;* Perform an Initial Data Analysis.
    - A personal data analytics or reporting project (for instance a reporting, a dashboard, a notebook) accompanied by a 10-minute recorded video that explains the project.

For all candidates, the admissions process starts with a form to validate the aforementioned prerequisites, as well as the alignment between the candidate's

professional goals and this path. Any necessary documents for the candidate's application will be collected via this form. If necessary, an individual interview with the candidate will also be organized.

- **Language:** you will need to provide a certificate not older than 2 years to demonstrate a minimum level of English B2.

  Certificates accepted:

  - English Diploma from a secondary institution (private or public) or an accredited higher learning institution
  - Linguaskill minimum score: 160
  - BULATS minimum score: 60
  - TOEIC minimum score: 785
  - IELTS minimum score: 6.5
  - TOEFL iBT minimum score: 88
  - Cambridge FCE / CAE / BEC HIGHER / BEC VANTAGE minimum score or grade: B or 160
  - Certificate from a language center demonstrating a minimum level of B2 (including the number of training hours completed and the company signature or stamp)

  Don’t have one of these certificates? Find out where to take an exam.

- **Equipment:** Access to a computer (PC or Mac), equipped with a microphone, a webcam and a good internet connection. Your computer doesn't need to be particularly powerful to complete this path, but it will need to meet the following requirements:
  - CPU: 2 x 64-bit, 2.8 GHz, core i3 ou AMD Ryzen 3 minimum (ideally core i7 ou AMD Ryzen 7),
  - RAM: 8 Go min (ideally 16 Go, but it's possible to use a free Google Colaboratory account for the larger datasets in the program).
  - Storage: recommended minimum of 256 Go.

The list of prerequisites was updated on the 3rd of November 2021 and applies only to new students on the path. If you have enrolled before this date, the previous prerequisites apply. As a reminder, here they are: "Fundamentals of probability, statistics and linear algebra".

What will I learn?

- Perform database searches using SQL queries to retrieve relevant data.
- Transform data into valuable information.

- Create informative data visualizations.
- Create dashboards and reports to facilitate the decision making process.
- Apply key mathematical concepts for data analysis.

How will I learn at OpenClassrooms?

Our learning method is unique and revolves around two elements: **professional projects** and dedicated **mentoring sessions**.

Projects

At OpenClassrooms, learning is project-driven because that's the fastest way to become proficient. Projects offer hands-on experience so you can hit the ground running when you start your new job.

OpenClassrooms' Data-Analyst path has **9 projects** that you'll need to complete one at a time with the support of your mentor. You'll receive a detailed brief with the context, deliverables and additional details. **Then it's up to you to go and make it real!** To do this you'll have to be creative, coming up with innovative solutions to the questions at hand.

Want to see an example of a project? Read our blog post here.

Mentorship

During your path, you will be allocated **a mentor who will offer one-to-one support** via weekly video conference sessions. This mentor will offer guidance on your projects, help define objectives and guide you until you reach them. **Our mentors are dedicated professionals who are experts in their field** and have experience in sharing their know-how with our students.

Any questions? Contact our student advisors at +44 20 3868 9900 or +1 (929) 376 0101, or request more information here. Opening hours: Monday to Friday 8.30am- 6.00pm UK time, until 1 pm Eastern Time.

University of Massachusetts Global Partnership

UMass Global

University of Massachusetts Global helps individuals continue their education for career growth by articulating OpenClassrooms Data Analyst training towards university credit and applying it to degree completion. Each program provides you with employer-designated knowledge, skills, and abilities needed in IT careers. Earn industry-recognized certifications along with degrees. Interested in business or other disciplines? Credit can also be used toward several other UMass Global programs.

UMass Global understands going back to school is not easy and recognizes every student comes to us with unique needs, providing you with the flexibility, affordability, and accessibility needed for successful education that fits your lifestyle. UMass Global is a nonprofit affiliate of the University of Massachusetts and is a fully accredited, nonprofit university designed for the busy adult. Offering over 90 programs and degrees in three learning modalities allows you to apply what you learn in courses in real-time, grow in your position, and gain the skills needed to take your career to the next level. With support from application to graduation, UMass Global is proud to have one of the highest graduation rates of any university of its kind.
Through OpenClassrooms and UMass Global's partnership, wraparound support, and mentoring, individuals across the globe can make their career advancement dreams a reality.

To learn more, please click **here.**

Additional information in available here:

- OpenClassrooms and UMass Global Partnership
- UMass Global
- UMass Global MyPath - video
- Free UMass Global Application

Project 1 - 30 hours

Start your journey as a Data Analyst

Set yourself up for success in your path. Find out what you are going to learn and get to know your mentor. You will also define your learning goals in this first project!

Skills

- Prepare for your training

Associated courses

Learn How to Learn

Easy 6 hours

Learning quickly and effectively is a key skill that can improve your learning capacity and help you take control of your personal and professional development.

Project 2 - 40 hours

24 hours in the life of a Data Analyst

Today you must provide a monthly report to your manager. What figures will you choose? Which graphs will you include in your presentation?

Skills

- Describe the role of a Data Analyst

Associated courses

Improve Your Data Literacy

Easy 8 hours

Transform data into information that can drive actions. This course will introduce you to the fundamentals of data analysis, processing, visualization and storytelling.

Project 3 - 50 hours

Improve your client's Social Media strategy

You have landed your first freelance job as a Data Analyst for an online magazine! Analyze your client's user data and make recommendations to better target their Social Media audience.

Skills

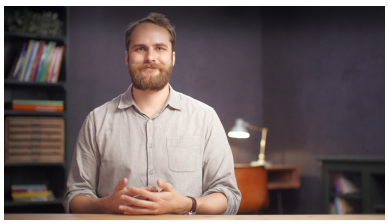
- Apply relational algebra operations using SQL
- Apply the concepts of the relational model using SQL
- Retrieve and analyze data using SQL queries
- Prepare the database and dataset using SQL

Associated courses

Think like a computer: the logic of programming

Easy 4 hours

Have you been thinking about a career in software development? Do you find computers and computer lingo a bit foreign? This course demystifies jargon and puts computer programming within reach!



Retrieve Data Using SQL

Medium 20 hours

In this course, you will learn how to represent data using the relational model and apply relational algebra concepts to SQL, the world's most popular query language to query databases.

Speak in Public

Easy 6 hours

Mobilize good practices in public speaking! Discover how to create your content with the techniques of storytelling and mind mapping, how to rehearse effectively and how to master your performance.

Project 4 - 70 hours

Conduct a public health study

You are responsible for setting the parameters for a study on malnutrition. To guide future research, you will have to designate data points, identifying trends and areas for improvement.

Skills

- Apply basic programming operations
- Apply relational algebra operations using Python
- Retrieve data from an external source
- Use a notebook to facilitate programming and collaboration
- Use Python Data Science libraries to solve a business problem

Associated courses

Learn Python Basics for Data Analysis

Easy 6 hours

In this course, you will learn an essential programming language for data analysis: Python, and cover programming fundamentals using practical examples and exercises.

Use Python Libraries for Data Science

Medium 8 hours

Use Python's specialized data science libraries. Learn how to use NumPy, Matplotlib, Pandas and Seaborn to create DataFrames and Data Visualizations.

Project 5 - 80 hours

Analyze your company’s sales

Your company provides you with their raw sales data and asks you to make sense of it. It's up to you to spot areas for growth and new market opportunities.

Skills

- Describe a dataset using a bivariate analysis
- Describe a dataset using a univariate analysis
- Transform a dataset for analysis

Associated courses

Perform an Initial Data Analysis

Easy 6 hours

Do you want to learn about data mining? In this course, you will perform univariate and bivariate analyses on your data. Above all, you will learn how to cleanse a dataset!

Project 6 - 100 hours

Conduct a market analysis

You are employed in an agribusiness company that wants to expand internationally. You must therefore identify new countries to grow their business.

Skills

- Perform a statistical test
- Carry out a hierarchical clustering

Associated courses

Perform an Exploratory Data Analysis

Medium 10 hours

Identify patterns in your data using PCA (Principal Component Analysis), a dimensionality reduction technique, and two of the most popular clustering methods: k-means and hierarchical clustering.

Design Effective Statistical Models to Understand Your Data

Medium 12 hours

Build, interpret, and evaluate linear, logistic and polynomial regression models based on observations in your data.

Project 7 - 70 hours

Detect counterfeit notes

Your IT consulting company has a new client: a government agency in charge of anti-counterfeiting. Your mission: find a solution to detect counterfeit notes

Skills

- Apply a modeling technique
- Select the appropriate model to meet business requirements
- Perform a classification with the k-means algorithm
- Select the appropriate classification algorithm
- Describe a dataset through principal component analysis

Associated courses

Design Effective Statistical Models to Understand Your Data

Medium 12 hours

Build, interpret, and evaluate linear, logistic and polynomial regression models based on observations in your data.

Project 8 - 80 hours

Make an income prediction

An international bank hopes to find new customers. From existing data, build a model to analyze and predict the income of prospective clients.

Skills

- Apply a linear regression
- Select the appropriate model to meet business requirements
- Apply an ANOVA

Associated courses

Design Effective Statistical Models to Understand Your Data

Medium 12 hours

Build, interpret, and evaluate linear, logistic and polynomial regression models based on observations in your data.

Project 9 - 60 hours

Help your company visualize their progress

Your pharmaceutical company wants to easily and efficiently monitor their ongoing projects. Your goal: create a custom dashboard for the executive committee.

Skills

- Create a dashboard to inform and assist decision making
- Identify project needs to create a relevant dashboard

Associated courses

Create Dashboards with Tableau

Easy 12 hours

In this course, you will learn how to design an effective dashboard blueprint. You will then build interactive and engaging dashboards from scratch using Tableau, an industry-standard data visualization tool.

Create Dashboards With PowerBI

Easy 8 hours

Learn how to identify needs for your data visualization project and optimize decision-making through building a dynamic dashboard with Power BI.