

# Data Science

PRACTITIONERS COURSE

---

**Engage with your team on real-world challenges, where the scientific method meets real business, and data-fueled systems can use machine learning models to find insights into the future.**

Data science is the practice of extracting knowledge from massive amounts of data, using methods such as statistics, machine learning, data mining, and predictive analytics.

This discipline is revolutionizing the way organizations solve problems and gain competitive advantage.

IBM Global University Programs



## About this course

This course challenges you to take on the different roles involved in a data science team, solving end-to-end real-world scenarios across different industries.

**Data Science Practitioners** – use advanced data science methods and tools, leveraging statistical sciences, machine learning technologies and industry-specific datasets, to implement unique data models that can solve challenging problems across all industries.


### Audience

Individuals with an active interest in applying for entry level jobs to work in data science related projects.

Prerequisite skills for this course:

- *Basic IT literacy skills*
- *Fundamental statistics concepts such slope and derivatives, standard deviation, correlations*

### Journey

 80 hours

- **25% Concepts**  
Expanding the knowledge and understanding of the topic through lecture training, examples, videos and quizzes.
- **35% Technologies**  
Actual implementation of the concepts learned through simulations, hands-on labs and games.
- **40% Industry Use Cases**  
Realization of the real-world impact of the topics covered through the exposure to industry case studies.



### Objectives

- Understand the evolution and relevance of data science in the world today.
- Explore end-to-end data science industry use cases using the data analytics lifecycle.
- Understand the scientific method for science projects, and the data science team key roles.
- Acquire technical expertise using popular open source data science frameworks including Jupyter notebooks and Python.
- Gain a competitive edge using low-code cloud-based platform for data science - IBM Watson Studio.
- Data engineering and data modeling practices using machine learning.
- Explore data science industry case studies: transportation, automotive, human resources, aerospace, banking and healthcare.
- Experience teamwork agile industry practices using design thinking.
- Engage in role-playing challenge-based scenarios to propose real-world solutions.

---

Industries are now tapping into data science and artificial intelligence as a technology-enabled business strategy.

[ibm.com/analytics](https://ibm.com/analytics)