

# Google Cloud Fundamentals: Big Data and Machine Learning (GCF-BDM)

ID GCF-BDM Prix CHF 850,- (Hors Taxe) Durée 1 jour

## A qui s'adresse cette formation

This class is intended for the following participants:

- Data analysts, Data scientists, Business analysts getting started with Google Cloud Platform
- Individuals responsible for designing pipelines and architectures for data processing, creating and maintaining machine learning and statistical models, querying datasets, visualizing query results and creating reports
- Executives and IT decision makers evaluating Google Cloud Platform for use by data scientists

## Cette formation prépare à la/aux certifications

Google Cloud Certified Professional Data Engineer (PDE)  
Google Cloud Certified Professional Machine Learning Engineer (PMLE)

## Pré-requis

To get the most of out of this course, participants should have:

- Basic proficiency with common query language such as SQL
- Experience with data modeling, extract, transform, load activities
- Developing applications using a common programming language such Python
- Familiarity with Machine Learning and/or statistics

## Objectifs

This course teaches participants the following skills:

- Identify the purpose and value of the key Big Data and Machine Learning products in the Google Cloud Platform
- Use Cloud SQL and Cloud Dataproc to migrate existing MySQL and Hadoop/Pig/Spark/Hive workloads to Google Cloud Platform
- Employ BigQuery and Cloud Datalab to carry out interactive data analysis

- Train and use a neural network using TensorFlow
- Employ ML APIs
- Choose between different data processing products on the Google Cloud Platform

## Contenu

### Module 1: Introducing Google Cloud Platform

- Google Platform Fundamentals Overview
- Google Cloud Platform Data Products and Technology
- Usage scenarios
- Lab: Sign up for Google Cloud Platform

### Module 2: Compute and Storage Fundamentals

- CPUs on demand (Compute Engine)
- A global filesystem (Cloud Storage)
- CloudShell
- Lab: Set up a Ingest-Transform-Publish data processing pipeline

### Module 3: Data Analytics on the Cloud

- Stepping-stones to the cloud
- CloudSQL: your SQL database on the cloud
- Lab: Importing data into CloudSQL and running queries
- Spark on Dataproc
- Lab: Machine Learning Recommendations with SparkML

### Module 4: Scaling Data Analysis

- Fast random access
- Datalab
- BigQuery
- Lab: Build machine learning dataset
- Machine Learning with TensorFlow
- Lab: Train and use neural network
- Fully built models for common needs
- Lab: Employ ML APIs

### Module 5: Data Processing Architectures

- Message-oriented architectures with Pub/Sub



- Creating pipelines with Dataflow
- Reference architecture for real-time and batch data processing

## **Module 6: Summary**

- Why GCP
- Where to go from here
- Additional Resources

Centres de formation dans le monde entier



**Fast Lane Institute for Knowledge Transfer (Switzerland) AG**

Husacherstrasse 3  
CH-8304 Wallisellen  
Tel. +41 44 832 50 80

info@flane.ch, <https://www.flane.ch>