





Preparing for the Google Cloud Professional Data Engineer Exam

This course will help you prepare for Google Cloud's Professional Data Engineer certification exam. This session uses lectures, quizzes, and discussions to help you become familiar with the structure and format of the exam. You'll take part in exam question reasoning and case comprehension, get tips from certified experts, and review topics from the Data Engineering curriculum. At the end of the course, you'll take an ungraded practice exam and then a graded practice exam that will simulate the exam-taking experience.

 **DURATION**
1 Day

 **LEVEL**
Advanced

 **FORMAT**
Instructor led

What you'll learn

- Understand the positioning of the Professional Data Engineer Certification.
- Receive information, tips, and advice on taking the exam.
- Through review of each section of the exam, covering highest-level concepts, develop confidence in what you know and recognize skill gaps/areas of study.
- Connect to appropriate target learning.



Overview	6 Modules · 47 videos · 2 labs · 10 activities
Who this course is for	<ul style="list-style-type: none">• Cloud professionals interested in taking the Data Engineer certification exam• Data engineering professionals interested in taking the Data Engineer certification exam
Products	<ul style="list-style-type: none">• BigQuery• Bigtable• Cloud SQL• Spanner• Dataproc• Dataflow• Cloud Composer• Cloud AI Platform• Cloud ML APIs
Prerequisites	To get the most out of this course, participants should: <ul style="list-style-type: none">• Be familiar with Google Cloud to the level of the “Data Engineering on Google Cloud” course (suggested, not required)

Module 01 **Understanding the Professional Data Engineer Certification**

Topics	<ul style="list-style-type: none">• Position the Professional Data Engineer certification among the offerings• Distinguish between Associate and Professional• Provide guidance between Professional Data Engineer and Associate Cloud Engineer• Describe how the exam is administered and the exam rules• Provide general advice about taking the exam
Objectives	Understand the Professional Data Engineer Certification Exam
Activities	—

Module 02 **Designing Data Processing Systems**

Topics	<ul style="list-style-type: none">• Designing data processing systems• Designing flexible data representations• Designing data pipelines• Designing data processing infrastructure
Objectives	Understand the Designing Data Processing Systems component of the Exam
Activities	Practice Exam Questions



Module 03 Building and Operationalizing Data Processing Systems

Topics	<ul style="list-style-type: none">• Building and maintaining data structures and databases• Building and maintaining flexible data representations• Building and maintaining pipelines• Building and maintaining processing infrastructure
Objectives	Understand the Building and Operationalizing Data Processing Systems component of the Exam
Activities	<ul style="list-style-type: none">• Practice Exam Questions• Case Study 01• Lab 01: PDE Prep—BigQuery Essentials: Challenge Lab

Module 04 Operationalizing Machine Learning Models

Topics	<ul style="list-style-type: none">• Analyzing data and enabling machine learning• Deploying an ML pipeline• Machine learning terminology review• Operationalizing Machine Learning Models: Exam Guide Review• Modeling business processes for analysis and optimization
Objectives	Understand the Operationalizing Machine Learning Models component of the Exam
Activities	<ul style="list-style-type: none">• Practice Exam Questions• Case Study 02• Case Study 03• Lab 02: PDE Prep—Cloud Dataproc cluster operations and maintenance: Challenge Lab

Module 05 Security, Policy, and Reliability

Topics	<ul style="list-style-type: none">• Designing for security and compliance• Performing quality control• Ensuring reliability• Visualizing data and advocating policy• Ensuring Solution Quality: Exam Guide Review
Objectives	Understand the Security, Policy, and Reliability component of the Exam
Activities	Practice Exam Questions



Module 06 **Resources and Next Steps**

Topics	<ul style="list-style-type: none">• Debrief• Preparation Resources
Objectives	Final Review of the Exam
Activities	Practice Exam Questions

