

Course Name	Oracle Cloud Infrastructure Data Science Professional
Course Duration	2 Days (16 hours)
Target Audience	Data Analyst, Data Scientist, ML Engineer
Course Outcomes	Identify OCI services to implement an ML solution for a business use case.
	Incorporate ML and cloud best practices.
	Use OCI Data Science to ingest, design, build, train, optimize, deploy, integrate, and maintain ML models.
	Apply OCI Data & AI services to create ML solutions.

Module 01: Introduction and Configuration

1.1	Data Science: Introduction
1.2	ADS SDK Overview
1.3	Tenancy Configuration Basics
1.4	Configure a Tenancy with OCI Resource Manager
1.5	Networking for Data Science
1.6	Authenticate to OCI APIs

Module 02: Workspace Design and Setup

2.1	Projects
2.2	Notebook Sessions
2.3	How to Work with JupyterLab
2.4	Conda Environments: Overview
2.5	Data Science Conda Environments
2.6	Manage Conda Environments
2.7	Demo: Manage Conda Environments
2.8	OCI Vault: Introduction
2.9	Using OCI Vault in OCI Data Science
3	Code Repositories (Git)
3.1	Demo: Code Repositories (Git)

Module 03: Machine Learning Lifecycle

3.1	ML Lifecycle: Overview
3.2	Access Data
3.3	Data Preprocessing
3.4	Demo: Data Preprocessing
3.5	Introduction to Feature Types
3.6	Custom Feature Types
3.7	Data Visualization
3.8	Model Training
3.9	Oracle AutoML: Introduction
3.11	Demo: Oracle Auto ML
3.12	Hyperparameter Tuning: ADSTuner
3.13	Model Evaluation
3.14	Model Explanations: Global Explainer
3.15	Model Explanations: Local Explainer

3.16	Model Catalos: Overview
3.17	Model Serialization
3.18	Model Deployment
3.19	Demo: Model Deployment
Module 04: MLOps Practices	
4.1	MLOps Architecture
4.2	Data Science Jobs
4.3	Demo: Create Artifacts
4.4	Demo: Create and Manage Jobs
4.5	Demo: Start and Manage a Job Run
4.6	Demo: Scaling
4.7	Jobs Monitoring and Logging
Module 05: Related OCI Services	
5.1	Spark Applications, Data Flow, and Data Science
5.2	Oracle Open Data
5.3	OCI Data Labeling
5.4	AI Perceptual Services
5.5	Demo: AI Perceptual Services
5.6	Oracle AI Decision Services
5.7	Demo: Oracle AI Decision Services