Managing data in the past, present, and future means mastering the SQL standard. SQL is versatile enough to encompass any type of data in Big Data systems: relational (SQL2) object-relational (SQL3, OQL) and no-relational (N.O.SQL, NEWSQL)

**GRADUATE ACADEMIC COURSE FROM BIHAR MASTER DEGREE (ESTIA)**

**OBJECT-RELATIONAL DATA BASES & SQL STANDARD**

**COURSE OVERVIEW**

- Master the concepts of the relational data model underlying the SQL standard (Codd's theorem on relational algebra, Gray's theorem on transactions, OLAP)
- Master SQL2 for relational data model (definition, manipulation & control)
- Master SQL3 for relational-object data models (Date's manifesto) with integration of line pointers within tables

**COURSE TEACHER**

Pr. Serge MIRANDA  
(UCA & ESTIA)

**INDUSTRIAL COURSE DELIVERED BY ORACLE UNIVERSITY**

**SQL ON ORACLE CLOUD**

**COURSE OVERVIEW**

This is an ideal training platform to learn about and work on SQL with Oracle Autonomous Database.

You will learn to:

- Retrieve row and column data from tables with the SELECT statement
- Create reports of sorted and restricted data
- Employ SQL functions to generate and retrieve customized data
- Run complex queries to retrieve data from multiple tables
- Run data manipulation language (DML) statements to update data in a database
- Run data definition language (DDL) statements to create and manage schema objects

Information & Enrolment for GRADEO and Master eBIHAR on www.datumacademy.com
BIG DATA & AI
ARCHITECT

GRADEO: Certificates leading to jobs

DURATION: 6 MONTHS • PRICE: 999 € • COURSES: 3
DELIVERING: 6 ECTS & 1 ORACLE CERTIFICATE • LEARNING MODE: 100% ONLINE

The AI and Big Data architect must master 3 environments at the heart of this GRADEO:

- The management of DATA, both structured with pre-definition of a fixed schema (SQL3, OQL), semi-structured with meta data (SparQL) and unstructured (NOSQL, New SQL) as well as the concepts of DATA WAREHOUSE and DATA LAKE.
- The analysis of DATA with computer methods (Data Mining and OLAP), statistics (Machine learning in supervised or unsupervised mode) or based on AI with the fundamental approach of Deep Learning (multi-layer neural networks)
- The Cloud which is the future of DATA management and analysis

GRADUATE ACADEMIC COURSES FROM BIHAR MASTER DEGREE (ESTIA)

- **ARTIFICIAL INTELLIGENCE (ML&DL)**
  - Mathematical tools for AI
  - The basics of Machine Learning
  - The basics of Deep Learning
  - Learning with Deep Learning
  - Computer vision, natural language
  - Software for Machine Learning

- **DISTRIBUTED BIG DATA MANAGEMENT**
  - BIG DATA paradigms and Codd relational data model for structured data
  - Introduction to SQL2, relational SQL
  - Chris Date's third manifesto for hybrid object-relational data models
  - Introduction to ODMG
  - Introduction to SQL3, object-relational SQL
  - NOSQL and NEWSQL for unstructured data

- **COURSE TEACHERS**
  - Pr. Marco GORI (UNISI)
  - Stefano MELACCI (UNISI)
  - Pr. Serge MIRANDA (UCA & ESTIA)

- **INDUSTRIAL COURSE DELIVERED BY ORACLE UNIVERSITY**
  - **ORACLE BIG DATA FUNDAMENTALS**
  - Manipulate Data and Extract Facts by Using Hive
  - Use Oracle XQuery for Hadoop
  - Use Oracle SQL Connector for HDFS
  - Use Oracle Data Integrator and Oracle GoldenGate with Hadoop
  - Use Oracle Big Data SQL
  - Perform Spatial Vector Analysis

You learn about big data, the technologies used in processing big data, and Oracle’s solution to handle big data. You also learn to use Oracle Big Data Appliance to process big data and obtain hands-on experience in using Oracle Big Data Lite VM. You will learn to:
- Run Hadoop Distributed File System (HDFS) Commands
- Retrieve Data Using CLI, Fuse DFS, Flume, and Kafka
- Run a MapReduce Hadoop Job
- Manage Resources Using YARN
- Use Apache Spark

Information & Enrolment for GRADEO and Master eBIHAR on www.datumacademy.com
FULL STACK MOBILE WEB DEVELOPER

DURATION: 6 MONTHS • PRICE: 799 € • COURSES: 2
DELIVERING: 3 ECTS & 1 ORACLE CERTIFICATE • LEARNING MODE: 100% ONLINE

From backend to frontend, including project management, testing, deployment, and server architecture, developers who master the entire skill chain are qualified as “full-stack”. Kind of a holy grail of the developer for some, the full stack developer is above all a competent and experienced application developer who is able to adapt to many environments.

GRADUATE ACADEMIC COURSE FROM BIHAR MASTER DEGREE (ESTIA)

FULL-STACK MOBILE WEB DEVELOPMENT

COURSE OVERVIEW

Based on acquired knowledge of the Groovy language and the Grails Framework
- Design and develop a backend
- Design and develop a REST API
- Handle security issues

Based on acquired knowledge related to HTML5 / CSS3 / JS / Typescript and the Angular Framework
- Design and develop a responsive mobile website
- Build components based on a REST API data

COURSE TEACHER

Grégory GALLI
(UCA & ESTIA)

INDUSTRIAL COURSE DELIVERED BY ORACLE UNIVERSITY

JAVASCRIPT AND HTML5: DEVELOP WEB APPLICATIONS

COURSE OVERVIEW

This course features the JavaScript language, from language fundamentals to dynamic interactions with browsers, DOM, HTML5, CSS3, JSON, REST, AJAX, WebSocket, and jQuery. You will learn to:
- Create HTML5 web applications with NetBeans
- Pass JavaScript tests in JSConsole with Jasmine
- Create an application with local storage
- Style elements with CSS3
- Implement AJAX, REST, and WebSocket
- Develop applications with jQuery

Information & Enrolment for GRADEO and Master eBIHAR on www.datumacademy.com