Learning Pathways

Educators need rigorous, robust computing education curriculum to spark curiosity in students and teach them critical computing knowledge and skills. Oracle Academy delivers with learning pathways in Java and database.

STANDARDS
To facilitate the inclusion of Oracle Academy curriculum into existing courses and curriculum, we work with ministries of education, organizations, and standards bodies to map and align the curriculum to relevant standards around the world. Our work in this area is ongoing.

Computer Science Teachers Association (CSTA)
Oracle Academy’s Java courses align to the CSTA K–12 Computer Science Standards, which are recognized and used internationally.

ISTE Seal of Alignment for Mastery
The International Society for Technology in Education (ISTE) completed a Seal of Alignment for Mastery review of the following Oracle Academy courses:
- Java Fundamentals
- Java Programming
- Database Design and Programming with SQL
- Programming with PL/SQL

Oracle Academy modular curriculum is created by teaching experts to enable learning institutions to offer computing education course pathways spanning from one semester to three years. Educators can implement our curriculum in the classroom to engage students and help them develop knowledge and skills in programming, problem solving, collaboration, critical thinking, and innovation.

ORACLE ACADEMY CURRICULUM
Java Pathway
Oracle Academy offers hands-on curriculum and projects focused on object-oriented programming for students just getting started, as well as advanced learners. Students are introduced to object-oriented concepts, terminology and syntax; the concepts of basic Java programming; 3-D animations; 2-D games; and emerging technologies such as artificial intelligence, machine learning, and more.

Database Pathway
Our database course of study introduces students to relational database concepts and terminology. Courses use Oracle Application Express (APEX) and Oracle SQL Developer Data Modeler to provide practical, hands-on learning. Students create and work with projects that challenge them to design, implement, and demonstrate a database solution for a business or organization.

In our progressive database pathway, students learn about data modeling concepts, Structured Query Language (SQL), and PL/SQL, the Oracle procedural extension language for SQL, to design, interact with a relational database and manipulate data. They analyze complex business scenarios, design and create data models, create databases using SQL, extend and automate SQL using PL/SQL, and design and build database-driven web applications using APEX, a cloud-enabled practice environment.
As Oracle's global, philanthropic educational program, Oracle Academy advances computing education around the world to increase knowledge, innovation, skills development, and diversity in technology fields. The program engages with thousands of educational institutions and educators in more than 120 countries, helping millions of students become college and career ready.

Join Oracle Academy today and access all the benefits of Institutional membership.

Learn more about Oracle Academy learning pathways at academy.oracle.com[curriculum]