Java Curriculum

Oracle Academy offers educators rigorous, engaging computing education curriculum that employs industry-leading technologies to spark student curiosity and imagination and teach critical technology knowledge and skills.

Institutions and their educators can use our free modular curriculum and learning pathways to help learners expand knowledge, develop career-ready skills, and innovate. Our curriculum and resources are created by educators for educators, offering course pathways spanning from one semester to three years. Member educators receive access to curriculum, software, and additional teaching resources.
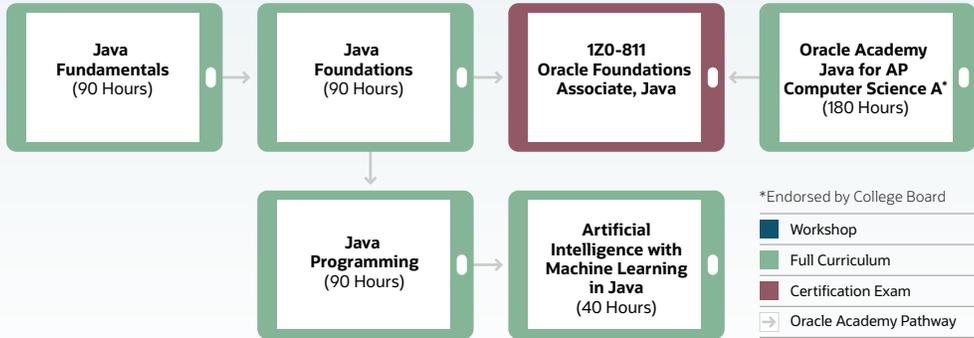
For object-oriented programming (Java), Oracle Academy courses Java Fundamentals, Java Foundations and Java Programming are designed for secondary school and higher education learners. Artificial Intelligence with Machine Learning in Java is suited for more advanced students who have gained fundamental knowledge of object-oriented concepts, data structures, recursion, and Java terminology and syntax from those previous courses.

With Oracle Academy curriculum, students engage in hands-on learning in Java and also develop problem-solving, collaboration, and critical-thinking skills to help them become career ready across industries.

Java Fundamentals

Engages students who have little or no programming experience. They are introduced to object-oriented programming concepts, terminology, and syntax using hands-on, engaging activities on easy to use Java platforms to scaffold their knowledge and create basic Java programs.

90 Hours

Java Foundations

Engages students who have little Java programming experience using a standard Java editor. They are introduced to object-oriented programming concepts, terminology, and syntax, and the steps required to create basic Java programs.

90 Hours

Java Programming

Builds on the skills gained in Java Fundamentals or Java Foundations to help students advance their Java programming skills. Participants design object- oriented programming applications and programs with Java using hands-on, engaging activities.

90 Hours

Artificial Intelligence with Machine Learning in Java

Building on the skills gained in Java Foundations and Java Programming, students learn and practice machine learning concepts within artificial intelligence. They are introduced to the terminology, syntax, and steps required to create a machine learning solution in Java.

40 Hours

Oracle Academy Java for AP Computer Science A

Endorsed by College Board, introduces secondary/high school students to Java knowledge, skills, and hands-on practice and prepares them for the College Board AP Computer Science A exam as well as the Oracle Foundations Associate, Java, professional certification.

180 Hours

| Getting Started with Java Using Alice (8 Hours) | → | Java Puzzle Ball (12 Hours) | → | Creating Java Programs with Greenfoot (16 Hours) | → | Programming the Finch Robot in Greenfoot (4 Hours) | → | Programming the Finch Robot in Java (4 Hours) |

Full Curriculum Starting Point

| Java Fundamentals (90 Hours) | → | Java Foundations (90 Hours) | → | 1Z0-811 Oracle Foundations Associate, Java | ← | Oracle Academy Java for AP Computer Science A* (180 Hours) |

| Java Programming (90 Hours) | → | Artificial Intelligence with Machine Learning in Java (40 Hours) |

*Endorsed by College Board

- ■ Workshop
- ■ Full Curriculum
- ■ Certification Exam
- → Oracle Academy Pathway

Oracle Academy, Oracle's global philanthropic educational program, is open to academic institutions and their educators to help advance student technology education, skills, innovation, and inclusion. We offer free teaching and learning resources — including curriculum, cloud, software, and more — that help develop key knowledge, hands-on practice, and career-relevant skills.

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

Learn more about Oracle Academy Java curriculum at **academy.oracle.com/curriculum**