

## Specialization

# Java Development

This specialization develops your ability to master Java fundamentals, create efficient algorithms, and build versatile applications while gaining a competitive edge through hands-on practice. The Java Development specialization consists of three required courses.

**Total Units: 8**

### Learning Outcomes:

- Demonstrate proficiency in core Java programming across foundational and advanced language features.
- Apply object-oriented design principles and efficient data structures to develop non-trivial Java applications.
- Incorporate generics, multithreading, networking, database connectivity, and GUI components to meet real-world development needs.
- Use modern development practices and tools, including AI-assisted programming, to write, improve, and debug high-quality Java code.



*Courses may have prerequisites; review the course page before enrolling. A checkmark indicates the course is typically offered during that term.\**

## Required Courses

8 Units | 3 Courses

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Java Programming I CMPR.X412	2.0	✓	✓	✓	✓
Java Programming II CMPR.X413	3.0		✓		✓
Data Structures and Algorithms Using Java CMPR.X407	3.0	✓		✓	

## Completion Review

Once all specialization requirements have been met and your final grades are posted, please access your Student Portal to enroll in the [“Specialization in Java Development Completion Fee”](#) to begin the review process. Please allow 4-6 weeks to receive your certificate.