

CPE JAVA (LSJ)

LSJ 8001 - Java Fundamentals (1.5 Credits)

1.5 lecture, .5 lab, 2 total contact hours

Learn simple and object-oriented program development, primitive and reference variables, the Java API, objects and classes, creation and calling of methods, encapsulation, conditionals, arrays, loops, inheritance, interfaces, polymorphism, collections, exception handling, and Java features including java.time and Lambda expressions. Covers essential components of Java. Helps you prepare for the Java Programmer certification exam. Recommended preparation: previous experience with Java or one other programming language.

Typically offered: Spring

LSJ 8002 - Java Programming (2 Credits)

1.5 lecture, 1 lab, 2.5 total contact hours

Covers core Application Programming Interfaces (API) used to design object-oriented applications with Java. Create classes, extend abstract classes and learn how to program with interfaces. Use Lambda expressions. Develop applications that manipulate files, directories and file systems. Provides knowledge in how to use exceptions and the Collections framework, write database programs with JDBC and multi-threaded applications. Recommended Preparation: LSJ8001 or the ability to create, compile and execute programs. Understanding of object-oriented principles, database concepts and familiarity with SQL syntax.

LSJ 8003 - Java Programming Language (2.5 Credits)

2 lecture, 1 lab, 3 total contact hours

Focuses on the syntax of the Java programming language and helps students prepare for the SCJP certification exam. Includes object-oriented programming, classes, encapsulation, inheritance, arrays, exception handling, generics, I/O, interfaces, and threads. Prerequisite: LSJ 8012 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8012 - Java Programming Fundamentals (2.5 Credits)

2 lecture, 1 lab, 3 total contact hours

Introduces students to object-oriented programming and the basics of the Java programming language. Intended for students with little or no programming experience or those with experience in non-object-oriented languages. Students need basic computer skills for this class.

LSJ 8490 - Introduction to Javascript (2 Credits)

2 lecture, 0 lab, 2 total contact hours

Provides a comprehensive and practical mastery of JavaScript (JS), one of the core programming languages for web development. Demonstrates how to apply JavaScript to create dynamic web pages and simple web applications. Provides a well-rounded understanding of the language through hands-on coding examples and app creation. Knowledge of HTML and some programming experience is recommended.

Typically offered: Fall, Spring, Summer

LSJ 8500 - Beginning Programming with Java (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Covers setup, basic program construction, variables, expressions, methods, loops, decision, and the Java API for individuals with little or no programming experience and basic computer skills.

LSJ 8510 - Introduction to OOP with Java (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Covers the essentials of object oriented programming using Java. Gets to the heart of objects, their benefits, how they are constructed and used in a program. Teaches OOP with relevant and insightful examples. Requires lab work outside of class. PREREQUISITE: Beginning Programming with Java course or any previous programming experience.

LSJ 8511 - Java SCJP Certification Training I (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Covers important Java syntax in detail and helps students prepare for the SCJP certification exam. Topics include: data types, loops, arrays, static vs. instance code, keywords, access modifiers, abstract classes and interfaces. Requires extensive lab work outside of class. PREREQUISITE: Introduction to OOP with Java or equivalent experience.

LSJ 8512 - Java SCJP Certification Training II (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Covers advanced topics from the SCJP certification exam. Includes enumerations, collections, exceptions file I/O, serialization, regular expressions, and threads. Requires extensive lab work outside of class. Prerequisite: LSJ 8511 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8520 - Java Developer Program (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Presents topics related to the SCJD certification. Covers Swing and user interface design, client-server networking, object-oriented development, file I/O, and data sorting and presentation. Requires extensive lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8530 - Introduction to Java-Micro Edition (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Introduces Java programming tools and techniques for developing small applications for cell phones. Covers the Java ME specifications, vendor APIs, the MIDP User Interface, and the MIDP Game API. Requires lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8550 - Java 3D Game Programming (1 Credit)

1 lecture, .5 lab, 1.5 total contact hours

Explores 3D game programming using Java. Enables students to learn important 3D graphics and game concepts with a powerful language without the complexities of other languages. Covers the Java 3D APE, Open GL for Java, JInput, and other gaming-related libraries. Requires extensive lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.