CompuScholar, Inc.

Alignment to
"*Oracle Certified Associate (OCA), Java SE 7 Programmer* "
Certification Exam Requirements

Oracle Exam Details:

Exam Title:	Oracle Certified Associate, Java SE 7 Programmer
Exam Code(s):	1Z0-803
Exam Link:	Java SE 7 Programmer 1

CompuScholar Course Details:

Course Title:	Java Programming (Abridged)
Course ISBN:	978-0-9887070-4-7
Course Year:	2018

OR

Course Title:	Java Programming (AP)
Course ISBN:	978-0-9887070-2-3
Course Year:	2018

Note 1: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

Note 2: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

Course Description

The Oracle Certified Associate, Java SE 7 Programmer exam is designed to test basic knowledge of the Java programming language and object-oriented programming skills. Preparation for this exam can generally be accomplished within a single school year.

EITHER the CompuScholar "Java Programming (Abridged)" OR the "Java Programming" courses can be used to prepare for this exam. Nearly all exam topics are covered, with a few minor exceptions noted as "n/a" below.

Exam Requirements

Java Basics	CITATION(S)
Define the scope of variables	Chapter 10, Lesson 2
Define the structure of a Java class	Chapter 10, Lesson 2
Create executable Java applications with a main method	Chapter 2, Lesson 2 and many chapter activities
Import other Java packages to make them accessible in your code	Chapter 2, Lesson 4

Working With Java Data Types	CITATION(S)
Declare and initialize variables	Chapter 4, Lesson 2 Chapter 5, Lesson 1
Differentiate between object reference variables and primitive variables	Chapter 4, Lesson 2 Chapter 5, Lesson 1
Read or write to object fields	Chapter 10, Lesson 3
Explain an Object's Lifecycle (creation, "dereference" and garbage collection)	n/a
Call methods on objects	Chapter 8 (all Lessons)
Manipulate data using the StringBuilder class and its methods	n/a
Creating and manipulating Strings	Chapter 5 (all Lessons)

Using Operators and Decision Constructs	CITATION(S)
Use Java operators	Chapter 7, Lesson 1
Use parenthesis to override operator precedence	Chapter 7, Lesson 1
Test equality between Strings and other objects using == and equals ()	Chapter 5, Lesson 2 Chapter 15, Lesson 5
Create if and if/else constructs	Chapter 7, Lesson 2
Use a switch statement	Chapter 7, Lesson 3

Creating and Using Arrays	CITATION(S)
Declare, instantiate, initialize and use a one-dimensional array	Chapter 14, Lesson 1
Declare, instantiate, initialize and use multi-dimensional array	Chapter 14, Lesson 1
Declare and use an ArrayList	Chapter 14, Lesson 2

Using Loop Constructs	CITATION(S)
Create and use while loops	Chapter 7, Lesson 5
Create and use for loops including the enhanced for loop	Chapter 7, Lesson 4 Chapter 14, Lesson 3
Create and use do/while loops	Chapter 7, Lesson 5
Compare loop constructs	Chapter 7, Lesson 4 Chapter 7, Lesson 5
Use break and continue	Chapter 7, Lesson 3 Chapter 7, Lesson 4

Working with Methods and Encapsulation	CITATION(S)
Create methods with arguments and return values	Chapter 8, Lesson 2
Apply the static keyword to methods and fields	Chapter 11, Lesson 3
Create an overloaded method	Chapter 8, Lesson 2
Differentiate between default and user defined constructors	Chapter 11, Lesson 1
Create and overload constructors	Chapter 11, Lesson 1 Chapter 15, Lesson 6
Apply access modifiers	Chapter 10, Lesson 3
Apply encapsulation principles to a class	Chapter 10, Lesson 1 Chapter 10, Lesson 2
Determine the effect upon object references and primitive values when they are passed into methods that change the values	Chapter 8, Lesson 3

Working with Inheritance	CITATION(S)
Implement inheritance	Chapter 15 (all Lessons) Chapter 16 (all Lessons)
Develop code that demonstrates the use of polymorphism	Chapter 15 (all Lessons) Chapter 16 (all Lessons)
Differentiate between the type of a reference and the type of an object	Chapter 15, Lesson 3
Determine when casting is necessary	Chapter 15, Lesson 3
Use super and this to access objects and constructors	Chapter 15, Lesson 6
Use abstract classes and interfaces	Chapter 11, Lesson 2 Chapter 15, Lesson 2

Working with Inheritance	CITATION(S)
Differentiate among checked exceptions, RuntimeExceptions and Errors	Chapter 9, Lesson 1 (exceptions described but not differentiated
Create a try-catch block and determine how exceptions alter normal program flow	Chapter 9, Lesson 2
Describe what Exceptions are used for in Java	Chapter 9, Lesson 1 Chapter 9, Lesson 2
Invoke a method that throws an exception	Chapter 9 Activity Chapter 18, Lesson 2
Recognize common exception classes and categories	Chapter 9, Lesson 1