FITZWILLIAM INSTITUTE GROUP

PROVIDING ACCREDITED PRACTICAL SKILLS TRAINING

ESTABLISHED OVER 25 YEARS

Diploma in Java Enterprise Web Programming with Sun Certified Java Exam Preparation Module by Distance Learning

Please find enclosed the details you requested reference the above course. We have also provided Frequently Asked Questions which can be found at the end of this document.

- The Fitzwilliam Institute Group is an established group of companies training over **3,000** people each year benefiting from over **25 years experience** in the training arena.

- The Diploma in Java Programming (Java Enterprise Edition) by Distance Learning is an **interactive** and **case study** based programme written by **industry professionals**.

- The full course is delivered to participants within 24 hours of enrolment **Online** and in a **Hard Copy** and **CD Rom** format within 15 working days.

- The course is made up of **a number of modules** with **practical exercises** at the end of selected modules. There is a final course project made up of 5 parts worth 20% each to be handed in to the subject expert.

- Full support is available from our **Subject Experts** by email at the end of each module and on an ongoing basis during the course.

- You will have full access to an **online account** and subject expert advice for one full calendar year.

- The Diploma is accredited by the **Institute of Commercial Management**. ICM is an independent organisation offering certification worldwide.

- Please contact us by phone or email for further information regarding current enrolment dates.

- The fee for the course is £995. Fees may be paid by cheque, bank draft, credit card, debit card, bank transfer or online at **payments page** through PayPal which is a safe, fast and secure method of payment.

If you wish to enrol on this course please visit our website **www.FitzwilliamInstituteGroup.co.uk** alternatively you can telephone us on **(020) 7812 0708 or (020) 7193 3962** or email **info@FitzwilliamInstituteGroup.co.uk** with any additional queries you may have.

Yours sincerely,

Noel Murphy
Director

ESTABLISHED OVER 25 YEARS

**Diploma in Java Enterprise Web Programming with Sun Certified Java Exam Preparation Module
by Distance Learning**

INTRODUCTION

This course provides an in-depth, fast-paced coverage of technologies and development methodologies for building web applications with Java Standard and Enterprise editions. The course covers the fundamentals of Java programming before introducing web related topics such as Applets, Servlets, Java Sever Pages (JSP) and Java Server Faces (JSF).

You will also learn how to access databases with Java and to create database driven websites., The modules gradually move from the simple to the complex as they show you how to work with: the Glassfish and Tomcat Servers, the NetBeans IDE, Java Object Oriented Programming, HTML pages and forms, JSPs, servlets, and the MVC pattern, Java Server Faces (JSF), RSS, Sessions and cookies, JavaBeans, the JSP Expression Language (EL), the JSP Standard Tag Library (JSTL), custom JSP tags, MySQL, JDBC, and connection pooling, authentication, listeners, To complete your training, we present an e-commerce web site that puts these skills into context. Once you understand how this web site works, you will have all the skills and code you need to start creating your own custom web applications.

This course covers most of the objectives of the Sun Certified Java Programmer (SCJP) and the Sun Certified Web Component Developer (SCWCD) accreditations.

COURSE CONTENT

Creating Java Applications:
Introduction to Java Applications, Using the javac command to compile Java applications, Using the java command to run Java applications, Displaying Text with printf, Variables and Introducing Arithmetic Operators, Equality and Relational Operators.

Using Classes and Objects:
Classes, Objects, Methods and Instance Variables, Declaring Class and Methods, Instantiating an Object of a Class, Declaring a Method with a Parameter, Instance Variables, set Methods and get Methods, Primitive Types vs. Reference Types, Initializing Objects with Constructors, Floating-Point Numbers and Type double.

Control Statements:
if Single-Selection Statement, if … else Double-Selection Statement, while Repetition Statement, Counter-Controlled Repetition, Sentinel-Controlled Repetition, Nested Control Statements, Compound Assignment Operators, Increment and Decrement Operators, Primitive Types, Essentials of Counter-Controlled Repetition, for Repetition Statement, do … while Repetition Statement, switch Multiple-Selection Statement, break and continue Statements, Logical Operators

Methods:
static Methods, static Fields and Class Math, Declaring Methods with Multiple Parameters, Notes on Declaring and Using Methods, Method-Call Stack and Activation Records, Argument Promotion and Casting, Java API Packages, Generalized Scaling and Shifting of Random Numbers, Scope of Declarations, Method Overloading

Arrays:
Declaring and Creating Arrays, Examples Using Arrays, Enhanced for Statement, Passing Arrays to Methods, Multidimensional Arrays

Classes and Objects:
Class Case Study, Controlling Access to Members, Referring to the Current Object's Members with the this Reference, Overloaded Constructors, Default and No-Argument Constructors, Composition, Enumerations, Garbage Collection and Method finalize, static Class Members, static Import, final Instance Variables, Creating Packages

Inheritance:
Superclasses and Subclasses, protected Members, Relationship between Superclasses and Subclasses, Creating an Inheritance Hierarchy, Using protected Instance Variables, Using private Instance Variables, Constructors in Subclasses, Software Engineering with Inheritance

Polymorphism:
Polymorphism Examples, Demonstrating Polymorphic Behavior, Abstract Classes and Methods, Polymorphic Processing, Operator instanceof and Downcasting, Allowed Assignments Between Superclass and Subclass Variables, final Methods and Classes, Creating and Using Interfaces, Declaring Constants with Interfaces, Common Interfaces of the Java API

Exception Handling:
Exception-Handling Overview, Handling ArithmeticExceptions and InputMismatchExceptions, When to Use Exception Handling, Java Exception Hierarchy, finally Block, Stack Unwinding, printStackTrace , getStackTrace and getMessage, Chained Exceptions, Declaring New Exception Types, Assertions

Database and JDBC:
Structured Query Language (SQL), Basic SELECT Query, WHERE Clause, ORDER BY Clause, Merging Data from Multiple Tables: Joining, INSERT INTO Statement, UPDATE Statement, DELETE FROM Statement, Creating Database books in Cloudscape, Manipulating Databases with JDBC, Connecting to and Querying a JDBC Data Source, PreparedStatements, Transaction Processing, Stored Procedures, Batch Processing, Processing Multiple ResultSets or Update Counts, Updatable ResultSets, JDBC, DataSource, Connection Pooling, RowSets

Applets:
Executing an Applet in the appletviewer, Executing an Applet in a Web Browser, Applet Life-Cycle Methods, Initializing an Instance Variable with Method init, Sandbox Security Model

Multimedia:
Loading, Displaying and Scaling Images, Animating Images, Image Maps, Loading and Playing Audio Clips, Playing Video and Other Media with Java Media Framework
XHTML: Editing XHTML, First XHTML Example, XHTML Validation Service, Headings, Linking, Images, Lists, Tables, Forms, Internal Linking, meta Elements

CSS:
Inline Styles, Embedded Style Sheets, Conflicting Styles, Linking External Style Sheets, Positioning Elements, Backgrounds, Element Dimensions, Box Model and Text Flow, Media Types, Building a CSS Drop-Down Menu, User Style Sheets

Servlets:
Servlet Overview and Architecture, Interface Servlet and the Servlet Life Cycle, HttpServlet Class, HttpServletRequest Interface, HttpServletResponse Interface, Handling HTTP get Requests, Setting Up the Apache Tomcat Server, Deploying a Web Application, Handling HTTP get Requests Containing Data, Handling HTTP post Requests, Redirecting Requests to Other Resources, Session Tracking, Cookies, Session Tracking with HttpSession, Multi-tier Applications: Using JDBC from a Servlet, HttpUtils Class

Java Server Pages:
JavaServer Pages Overview, A First JavaServer Page Example, Implicit Objects, Scripting, Scripting Components, Scripting Example, Standard Actions, <jsp:include> Action, <jsp:forward> Action, <jsp:plugin> Action, <jsp:useBean> Action, Directives, page Directive, include Directive, Custom Tag Libraries, Createing a Custom Tag, Tag Attributes, Evaluating the Body of a Custom Tag

Java Server Faces:
Java Web Technologies, Servlets, JavaServer Pages, JavaServer Faces, Web Technologies in Netbeans, Creating and Running a Web Application in Netbean, Examining a JSP File, Examining a Page Bean File, Event-Processing Life Cycle, Relationship Between the JSP and Page Bean Files, Examining the XHTML Generated by a Java Web Application, Building a Web Application in Netbeans

Ajax Enabled Java Server Faces:

Accessing Databases in Web Applications, Building a Web Application That Displays Data from a Database, Modifying the Page Bean File for the AddressBook Application, Ajax-Enabled JSF Components, AutoComplete Text Field and Virtual Forms, Configuring Virtual Forms, JSP File with Virtual Forms and an AutoComplete Text Field, Providing Suggestions for a AutoCompleteText Field, Google Maps Map Viewer Component

XML and RSS:

XML Basics, Structuring Data, XML Namespaces, Document Type Definitions (DTDs), W3C XML Schema Documents, XML Vocabularies, MathMLTM, Other Markup Languages, Extensible Stylesheet Language and XSL Transformations, Document Object Model (DOM)

Java RSS Utilities:

The RSS Utilities Package, Installing the RSS Taglib, Using the RSS taglib, Extracting Data From RSS Feed, Java RSS Parser.

METHODS OF TRAINING

Online Lecture Modules, Subject Expert Feedback Sessions after each Module, practical case studies, end of module assignments. etc.

SUBJECT EXPERTS

Full support is available from our subject experts by email at the end of each module and an ongoing basis during the course.

WHO SHOULD APPLY

Anyone who wishes to develop a career in Java Programming. Selection is based on consultation. Please contact us at **(020) 7812 0708 or (020) 7193 3962** to arrange.

POSSIBLE CAREERS

Computer Programmer, Software Developer, Java Developer, Software engineer, Software Test, Software Design, IT consultant, Software Trainer.

QUALIFICATIONS

Successful candidates are awarded the Diploma in Java Programming (Dip. Java Prog.) at Pass, Credit or Distinction level. The Diploma is awarded by the Institute of Commercial Management.

APPLICATION PROCESS

Selection is based on telephone consultation. Please contact us at **(020) 7812 0708 or (020) 7193 3962** or e mail **info@FitzwilliamInstituteGroup.co.uk** to arrange a Consultation today!

DISCLAIMER

Every effort is made to ensure accuracy; however responsibility is disclaimed for any error or omission in this brochure.

FREQUENTLY ASKED QUESTIONS

Course Specifics

How long does the course take to complete?
Course participants will have full access to the online course and subject expert advice for one full calendar year.

What is the course fee?
£995

When does the course start?
Please contact us by phone or email for further information regarding current enrolment dates.
The full course content is delivered to participants within 24 hours upon enrolment in an online format and within 15 working days in hard copy and CD Rom formats.

Is this a fully comprehensive and fully inclusive course?
Yes. This course helps novices become literate in Java programming and experienced programmers become skilled Java developers. Skilled Java programmers are in demand worldwide for exciting well paid jobs. The Diploma in Java Programming provides the complete preparation for both the Sun Certified Java Associate Exam and the Sun Certified Java Programmer Exam.

Will this course help me get into the industry and build a network of contacts?
Yes. As the course is accredited by the industry and all our subject experts are themselves industry professionals, this provides you with direct access and resources within the industry.

Will I have contact with industry professionals from specialised areas?
Yes. Full support is available from our subject experts by email at the end of each module and an ongoing basis during the course. All subject experts are themselves Industry Professionals with many years experience.

Am I required to purchase any materials or books for this course?
No. The course includes comprehensive notes, a course CD Rom as well as on-line assistance from our subject experts. A folder of the entire course content is also sent to you in hard copy to your postal address. The course is designed to be as convenient and flexible as possible.

Assessment Process

How are we assessed?
Through practical assignments and a final course project

Are there exams?
No. The course is centred around the practical Java Programming Project which is explained below.

Course Structure and Outline:
On commencing the course, you are provided with a username and password with which you sign in. There is a user guide at the very beginning explaining how to use and work your way through the course.

The Java Programming Real World project is an important part of the course. Each course participant is given the project brief which is based on a Java Project utilised in the workplace.

Participants are asked at the end of the course to submit a Java Programming Proposal with their recommendations to the examiners.

This gives participants the opportunity to use the knowledge they have obtained during the course in a focused way and develops Real world Java Programming Project Skills

On completion of each project part, you must submit it electronically to the subject expert. There is a link provided in the site to all subject experts who will respond within 48 hours to any general query. Once they have corrected the project they provide you with relevant feedback as to how to improve and let you know you're on the right track etc.

You are then provided with Final Project Submission Guidelines at the end of the final module.

Application Process

How do I apply for a course / what is the application process?
There is no application form. The course can be booked and paid for online through our website at **payments page**. If you have any additional queries after reading this brochure we simply ask you to contact us on **(020) 7193 3962** or e-mail us at **info@FitzwilliamInstituteGroup.co.uk** and ask to be booked in for a consultation; we will then arrange a time convenient for you.

Do I need any previous experience or qualifications to join this course?
We do not request any previous experience or qualifications.

When is the deadline to apply for a course?
Please contact us by phone or email for further information regarding current enrolment dates.

Course Accreditation

Is this course accredited?
Yes. This course is accredited by the Institute of Commercial Management (ICM).

Is it internationally recognised?
Yes. It is both industry accredited and recognised internationally in over 130 countries.

How are the diplomas awarded in terms of grades?
Successful candidates qualify for the Diploma in Java Enterprise Web Programming. The Diploma is awarded at Distinction, Credit or Pass level.

Method of Training

Method of Training/ How do we differ from others?
The type of training we specialise in is one of Practical Skills. Online Lecture Modules, Subject Expert Feedback Sessions after each Module, practical case studies, end of module assignments.

Who delivers the training/ classes?
The Fitzwilliam Institute Group maintains a panel of qualified and motivated industry professionals, who work as a team of subject experts monitoring each student's progress.

Who is the course aimed at/ will it suit my needs?
The aim of this course is to provide learners with skills, knowledge and competencies to be able to write and design sophisticated professional programs using JAVA. To complete your training, we present an e-commerce web site that puts these skills into context. Once you understand how this web site works, you will have all the skills and code you need to start creating your own custom web applications.
This course covers most of the objectives of the Sun Certified Java Programmer (SCJP) and the Sun Certified Web Component Developer (SCWCD) accreditations.

How quickly can I obtain my Diploma?
On successful completion of this course, a Diploma will be issued by the Institute of Commecial Management and sent out to you within a number of weeks.

Why would you recommend me to do this course above any other?
The Fitzwilliam Institute Group is an established group of companies training over **3,000** people each year benefiting from over 25 years experience in the training arena.

The approach we use is one of practical skills based training, delivered by people from the industry for the industry. Our courses are recognised internationally and accredited by the industry. The comprehensive course you are embarking upon was written by industry professionals; the subject experts also have a wealth of industry experience. The Institutional recognition of the course is a major factor also.