Eligible for SSG Cat-B funding, SkillsFuture Credit, WTS Scheme and UTAP funding*

Microsoft .Net and Visual Studio
NICF - Programming in HTML5 with Javascript and CSS3

Course Overview
This five-day course provides an introduction to HTML5, CSS3, and JavaScript and helps students gain basic HTML5/CSS3/JavaScript programming skills. The course focuses on using HTML5/CSS3/JavaScript to implement programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create well-structured applications.

The lab scenarios in this course are selected to support and demonstrate the structure of various application scenarios. They are intended to focus on the principles and coding components/structures that are used to establish an HTML5 software application.

Course Objectives
• Explain how to use Visual Studio 2012 to create and run a Web application
• Describe the new features of HTML5, and create and style HTML5 pages
• Add interactivity to a HTML5 page by using JavaScript
• Create HTML5 forms by using different input types, and validate user input by using HTML5 attributes and JavaScript code
• Send and receive data to and from a remote data source by using XMLHttpRequest objects and jQuery AJAX operations
• Style HTML5 pages by using CSS3
• Create well-structured and easily-maintainable JavaScript code
• Use common HTML5 APIs in interactive Web applications
• Create Web applications that support offline operations
• Create HTML5 Web pages that can adapt to different devices and form factors
• Add advanced graphics to a HTML5 page by using Canvas elements, and Scalable Vector Graphics
• Enhance the user experience by adding animations to a HTML5 page
• Use Web Sockets to send and receive data between a Web application and a server
• Improve the responsiveness of a Web application that performs long-running operations by using Web Worker processes
NICF – Programming in Visual Basic with Microsoft Visual Studio

Course Overview
This five-day course teaches you Visual Basic language syntax, program structure, and implementation by using Microsoft Visual Studio® 2010 and the Microsoft .NET Framework 4. This course provides a solid foundation in Visual Basic to enable students to attend other courses in the Technical Specialist tracks.

Course Objectives
- Describe the purpose of the .NET Framework, and explain how to use Microsoft Visual Basic® and Visual Studio 2010 to build .NET Framework applications
- Describe the syntax of basic Visual Basic programming constructs
- Describe how to create and call methods
- Describe how to catch, handle, and throw exceptions
- Describe how to perform basic file I/O operations in a Visual Basic application
- Describe how to control the visibility and lifetime of members in a type
- Describe how to use inheritance to create new reference types
- Describe how to manage the lifetime of objects and control the use of resources
- Describe how to create properties and indexers to encapsulate data, and explain how to define operators for this data
- Describe how to decouple an operation from the method that implements it, and explain how to use these decoupled operations to handle asynchronous events
- Describe the purpose of collections, and explain how to use generics to implement type-safe collection classes, structures, interfaces, and methods
- Describe how to implement custom collection classes that support enumeration
- Describe how to query in-memory data by using Language-Integrated Query (LINQ) queries
- Describe how to integrate code written by using a dynamic language such as Ruby and Python, or technologies such as Component Object Model (COM), into a Visual Basic application
NICF – Developing ASP.NET MVC 4 Web Applications

Course Overview

In this five-day course, students will learn to develop advanced ASP.NET MVC applications using .NET Framework 4.5 tools and technologies. The focus will be on coding activities that enhance the performance and scalability of a web application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used. This course will also prepare the students for the exam 70-486.

Course Objectives

• Describe the Microsoft Web Technologies stack and select an appropriate technology to use to develop any given application
• Design the architecture and implementation of a web application that will meet a set of functional requirements, user interface requirements, and address business models
• Create MVC Models and write code that implements business logic within Model methods, properties, and events
• Add Controllers to an MVC Application to manage user interaction, update models, and select and return Views
• Create Views in an MVC application that display and edit data and interact with Models and Controllers
• Run unit tests and debugging tools against a web application in Visual Studio 2012 and configure an application for troubleshooting
• Develop a web application that uses the ASP.NET routing engine to present friendly URLs and a logical navigation hierarchy to users
• Implement a consistent look and feel, including corporate branding, across an entire MVC web application
• Use partial page updates and caching to reduce the network bandwidth used by an application and accelerate responses to user requests
• Write JavaScript code that runs on the client-side and utilizes the jQuery script library to optimize the responsiveness of an MVC web application
• Implement a complete membership system in an MVC 4 web application
• Use partial page updates and caching to reduce the network bandwidth used by an application and accelerate responses to user requests
• Write JavaScript code that runs on the client-side and utilizes the jQuery script library to optimize the responsiveness of an MVC web application
• Implement a complete membership system in an MVC 4 web application
• Build an MVC application that resists malicious attacks and persists information about users and preferences
• Describe how to write a Windows Azure web service and call it from and MVC application
• Describe what a Web API is and why developers might add a Web API to an application
• Modify the way browser requests are handled by an MVC application
• Describe how to package and deploy an ASP.NET MVC 4 web application from a development computer to a web server for staging or production

NICF – Oracle Certified Associate, Java Programmer

Course Overview

This five-day course introduces you to object-oriented programming using the Java language. Through hands-on exercises, you’ll begin to build a baseline of knowledge to propel your career in development.

By enrolling in this course, you’ll expand your knowledge of Java SE 8, while building your Java skill set. You’ll build a solid basis in the Java programming language upon which to base continued work and training.

Course Objectives

• Write Java code that uses variables, arrays, conditional and loop constructs
• Manipulate primitive numeric data and string data using Java operators
• Create Java classes and use object references
• Access the fields and methods of an object
• Manipulate text data using the methods of the String and StringBuilder classes
• Use casting without losing precision or causing errors
• Declare, override, and invoke methods
• Access and create static fields and methods
• Use classes from the java.time and java.time.format packages to format and print the local date and time
• Encapsulate a class using access modifiers and overloaded constructors
• Define and implement a simple class hierarchy
• Demonstrate polymorphism by implementing a Java Interface
• Use a Predicate Lambda expression as the argument to a method
• Handle a checked exception in a Java application
NICF – Front-End Web Application Development with Java EE

Course Overview
This five-day course helps participants explore building and deploying enterprise applications that comply with the Java Platform, Enterprise Edition 7 Web Profile. Expert Oracle University instructors will help participants explore annotations, Session Enterprise JavaBeans (EJB-Lite), Java Persistence API (JPA), servlets, JavaServer Pages (JSPs), Contexts and Dependency Injection (CDI), JAX-RS RESTful Web services, the Java API for WebSocket and the Java API for JSON processing.

By taking this course, you’ll gain hands-on experience building Java EE web applications. You will get the chance to create web-based user interfaces using HTML5 and JavaScript along with JSPs and servlets. Web-based user interfaces will use AJAX to communicate with RESTful web services you create; data will persist using JPA and optimistic locking.

By learning through hands-on exercises via structured labs, you'll get a chance to explore EJB-Lite session bean components, which can be used with container-managed transactions. You'll perform lab exercises using the NetBeans IDE and WebLogic Server.

Course Objectives
• Create and use Java annotations
• Select the correct Java EE Profile for a given application
• Develop and run an EJB technology application
• Create Java EE technology applications with the Java EE 7 Platform
• Identify the services provided by an Application Server
• Package, deploy and debug enterprise applications
• Create web-based user interfaces using Servlet, JSP, JAX-RS, and JavaScript technologies
• Access relational databases using the Java Persistence API
• Create scalable, transacted business logic with EJB-Lite
• Develop basic Java Persistence API entity classes to enable database access
• Develop a web-based user interface using Servlets, JSPs, and JAX-RS
• Design applications to use dependency injection
• Use IDEs and Application Servers for Java EE development

NICF – Oracle Certified Professional, Java Programmer

Course Overview
This five-day course covers the core language features and Application Programming Interfaces (API) you will use to design object-oriented applications with Java Standard Edition 8 (Java SE 8) Platform.

You can use this course to further develop your skills with the Java language and prepare for the Oracle Certified Professional, Java SE 8 Programmer Exam.

Course Objectives
• Creating high-performing multi-threaded applications
• Creating Java technology applications that leverage the object-oriented features of the Java language, such as encapsulation, inheritance, and polymorphism
• Implementing input/output (I/O) functionality to read from and write to data and text files and understand advanced I/O streams
• Executing a Java technology application from the command line
• Manipulating files, directories and file systems using the JDK NIO.2 specification
• Creating applications that use the Java Collections framework
• Performing multiple operations on database tables, including creating, reading, updating and deleting using both JDBC and JPA technology
• Searching and filter collections using Lambda Expressions
• Implementing error-handling techniques using exception handling
• Using Lambda Expression concurrency features
Android

NICF – Android Programming & Applications Development

Course Overview
This five-day course provides the required knowledge and skills to design and build a complete Android™ application. It delivers extensive training on the main Android SDK components and its interactions. The course is updated to include topics compatible with all Android versions up to Android 7 (Nougat) and the source code updated to API 24. This course is mapped for AND-401 exam.

This course will also teach you all the basic techniques you need to publish, promote, and profit from your application.

Course Objectives
• Design and build a complete Android application
• Debug and maintain Android applications using different tools and plugins
• Thoroughly understand the life-cycle of an Android application and its main components
• Use external resources, manifest files, intents and adapters
• Understand and use all Android persistent storage techniques: Preferences, files, databases, and content providers
• Use Android's background processing techniques
• Build location-aware applications using GPS as a location provider and Google Maps
• Understand different techniques to monetize your application
• Add advertisements without degrading the user experience
• Create Android applications with in-app billing
• Learn how to gather statistics about your application's usage
• Publish and advertise your application effectively

iOS

NICF – iOS Programming & Applications Development with Swift

Course Overview
Using Apple's Swift programming language, this five-day course will help participants to build iPhone and iPad apps and distribute them through the Appstore.

Swift was designed by Apple to incorporate modern scripting features while offering simpler, cleaner syntax than Objective-C to maintain a minimal and easy to read style. This more expressive code offers numerous key features, such as closures unified with function pointers, tuples and multiple value returns, generics, and functional programming patterns.

First, this course begins with fundamentals of Swift by introducing participants to iOS development in this language, and presenting best practices for setting up a development environment and using variables, statements, expressions, operators, functions, and closures.

Next, participants will explore common tasks, such as alert views, table views, and collection views. Participants will then deepen their knowledge of Swift by considering network programming and local data storage.

Finally, the course dives into slightly more advanced concepts, such as tab bars, web views, the accelerometer, camera, photo library, Google maps, and core location.

Course Objectives
• Understand the typical application development process
• Understand the features of Xcode and iOS Simulator
• Perform object-oriented programing with Swift
• Learn about UIKit and adaptive layout
• Design and build a complete iOS application
• Learn how to store data.Conduct user interface test before launch
PHP
NICF – Programming in PHP

Course details coming soon.

Register your interest today!