

## Course Outline

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### Internet Business Foundations



**Duration:** 5 days (30 hours)

#### Learning Objectives:

Internet Business Foundations prepares students to work effectively in today's business environment. In this course, students will learn about the tasks involved in various Information Technology (IT) job roles. Students will also learn about Internet connection methods, Internet protocols and the Domain Name System (DNS). Students will study the basic functions of Web browsers, the components of Web addresses and the use and control of cookies. Students will learn how plug-ins can improve their Web browsing experience, and Students will use browsers to download and manage files. Students will learn about databases as they relate to Web search engines, and Students will use search engines to conduct basic and advanced Web searches. This course also teaches Students to configure email clients and use e-mail, and it provides guidelines for communicating effectively over the Internet via e-mail and other methods such as instant messaging and newsgroups. Students will learn about the risks associated with being connected to the Internet, and about the security measures that can keep their system and their personal information secure. Finally, Students will study the fundamental elements of project management and the importance of acquiring these skills for all IT job roles

#### Target Audience:

All professionals required to use the Internet in their daily job functions. Information in this course is required for all levels of specialization in the CIW program

#### Prerequisites:

No prior experience using the Internet, developing Web pages or configuring networks is necessary. However, students should be familiar with an operating system such as Microsoft Windows XP before taking this course. The CIW Foundations courseware does not provide entry-level computer literacy. Rather, it builds upon computer literacy training and certifications such as Microsoft Office Specialist ([www.microsoft.com](http://www.microsoft.com)) and IC3 ([www.certiport.net](http://www.certiport.net))

#### Topics Covered:

- Information Technology and the Internet
  - Overview of Information Technology (IT)
  - IT Job Roles
  - Overview of Networks
  - Overview of the Internet
  - Connecting to the Internet
  - Internet Protocols
  - Domain Name System (DNS)
- Web Browsing
  - Introduction to Web Browsing
  - Basic Functions of Web Browsers
  - Installing a Web Browser
  - Web Addresses

- How Browsers Work
- Browser Choices
- Resources for Technical Data
- Browsers in the Business World
- Browsing Techniques
- Configuring Web Browser Preferences
- Cookies
- Configuring Browser Security
- Proxy Servers
- Troubleshooting Internet Client Problems
- Multimedia on the Web
  - Introduction to Multimedia on the Web
  - Objects, Active Content and Languages
  - Objects and Security Issues
  - Introduction to Plug-in Technology
  - Data Compression and Decompression
  - Plug-in Installation
  - Types of Plug-ins
  - Types of Viewers
  - Miscellaneous File Formats
  - Downloading Files with a Browser
- Databases and Web Search Engines
  - Introduction to Data Searching Tools
  - Overview of Databases
  - Introduction to Web Search Engines
  - Registering a Web Site with a Search Engine
  - Types of Web Searches
  - Basic Web Searching Techniques
  - Boolean Operators
  - Advanced Web Searching Techniques
  - Using Web Searches to Perform Job Tasks
  - Unexpected Web Search Results
  - Web Search Strategies
  - Citing Copyrighted Web Site References
- E-Mail and Personal Information Management
  - Introduction to Electronic Mail (E-Mail)
  - How E-Mail Works
  - E-Mail Configuration Requirements
  - E-Mail Message Components
  - Creating and Sending E-Mail Messages
  - Receiving and Viewing E-Mail Messages
  - E-Mail in the Workplace

- E-Mail Problems and Solutions
- Personal Information Management (PIM)
- Internet Services and Tools
  - Internet Resource Tools
  - Newsgroups
  - Telnet
  - File Transfer Protocol (FTP)
  - Managing Downloaded Files
  - Virtual Network Computing (VNC) and Microsoft Terminal Services
  - Instant Messaging
  - Peer-to-Peer Networks
  - Lightweight Directory Access Protocol (LDAP)
  - Concurrent Versions System (CVS)
  - Communicating Effectively over the Internet
  - Troubleshooting Using TCP/IP Tools
- Internet Security
  - Introduction to Internet Security
  - Encryption
  - Authentication
  - Firewalls
  - Malware (Malicious Software)
  - Virus Detection and Prevention
  - Spyware
  - Updates and Patches
  - Screen Savers
  - List Servers and Listserv Groups
  - Security-Related Ethical and Legal Issues
- IT Project Management
  - Overview of IT Project Management
  - Project Management Fundamentals
  - Project Management Skills
  - Project Management Phases
  - The Project Triangle
  - Project Management Software
  - Creating Project Schedules
  - Documenting Projects
  - Planning and Scheduling Meetings
  - Reviewing Projects
  - Quality Assurance
  - IT Business Implications
  - Project Management Institute (PMI)
- Interfaces and Abstract Classes
  - What Is an Interface?

- Polymorphism
- What Is an Abstract Class?
- Packages and Access Modifiers
  - Introduction to Packages and Access
  - Modifiers
  - Packages
  - Access Modifiers
  - Java 2 Application Programming Interface
  - Encapsulation
- Swing Components
  - What Is the AWT?
  - What Is Swing?
  - Basic Swing Components
  - Swing Containers
  - JavaBeans
- Layout Managers
  - What Is a Layout Manager?
  - FlowLayout
  - GridLayout
  - BorderLayout
  - BoxLayout
  - Combining Layouts
  - Graphics in Java
  - Graphics Class
  - Color Class
  - Font Class
- The Event Delegation Model
  - What Is an Event?
  - JDK 1.0 Event Handling
  - SDK 1.2 Event Handling
- Inner Classes
  - What Is an Inner Class?
  - Inner Classes for Event Handling
- Java Applets
  - Programming Applets
  - Applets and Web Browsers
  - Converting an Application into an Applet
  - Converting an Applet into an Application
- Exceptions
  - What Is an Exception?
  - Handling Exceptions
  - Creating User-Defined Exceptions
  - Exception Handling Tips

- Exceptions and Inheritance
- Creating Threads and Thread Methods
  - What Are Threads?
  - How Operating Systems Handle
  - Multitasking
  - Types of Threads in Java
  - Creating Threads
  - Thread Methods
- Thread Synchronization
  - What Is Thread Synchronization?
  - Thread Racing
  - Synchronized and the Object Monitor
  - Thread Race Condition
  - Sophisticated Thread Synchronization
  - Stopping, Suspending and Resuming
  - Threads
  - Deadlocks
- Streams and Serialization
  - What Is a Stream?
  - InputStream, OutputStream, Reader and Writer
  - Files
  - Stream Classes of java.io.\*
  - Serialization
- Networking in Java
  - What Is Networking?
  - Connecting Computers Across the Internet
  - Networking Classes of java.net.\*
  - The Java Client/Server Model
  - Building the EchoServer
  - Multithreading Your Client/Server Example