



# XML Foundation

## **About the Course**

### **Designed for**

This course is designed to teach the basics of XML for webmasters, application developers or any potential XML document author, applicable to both the Web and traditional data processing environments.

### **Teaching Approach**

This course will, through lecture and hands-on workshops, teach you the basics of XML: its syntax, how to work with an XML document as an object tree, how to apply a content model to an XML document, and how to use XML style sheets to transform a document.

### **Prerequisites**

Background in any of the following is required: software programming, general Internet/Web development, document processing, markup languages, data processing. Specific HTML or application development experience is helpful but not required.

### **Course Material**

The majority of this course is spent with a set of prepared exercises and projects so that those attending gain firm foundations through their own practical experience. Professionally presented course notes are provided and these may be retained for reference afterwards.

### **Duration & Cost**

This training program is one day in duration.

## **Course Outline**

### **What Is XML?**

- Introduction to XML
- Short History of Markup Languages
- Anatomy of an HTML Document
- Anatomy of an XML Document
- Solving the XML Puzzle

### **Well-Formed XML**

- What is Well-Formed XML?
- XML Document Structure
- Introduction to CSS

### **The Document Type Definition**

- What is Valid XML?
- Document Type Declaration
- External DTD
- Element Structure in the DTD
- CDATA Section

### **XML Elements**

- Element Declarations
- Element Content Model
- Adding More CSS Properties

### **XML Attributes**

- What is an Attribute?
- Attribute Declarations
- Attribute Types

- Attribute Defaults
- Enumerated Attributes
- Attributes & CSS
- Additional XML Declaration Attributes

### **XML Entities**

- What Is an Entity?
- Character References
- Entity Declarations
- Parameter Entities
- Conditional Sections in DTDs

### **XML Namespaces**

- What is an XML Namespace?
- Namespace Myth
- Defining Namespaces in DTDs
- Multiple Namespaces
- Attributes & Namespaces

### **Introducing XML Schema**

- What Is XML Schema?
- Simple Element Type
- Complex Type Elements
- Annotations in Schema
- Attributes in Schema
- Occurrence Constraints
- Content Models in Schema
- Other XML Schema Features

### **Introducing XSL**

- What Is Extensible Stylesheet Language?
- Matching Patterns
- Formatting with XSLFO
- Location Path
- Literal Result Elements
- Other XSL Features

### **Introducing XHTML**

- What Is XHTML?
- Adding XML to an XHTML Document
- Adding XHTML to an XML Document
- Future Directions of XHTML