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## Course 587: Advanced JavaScript (3 days)

### Course Description...

This is not a beginning JavaScript course. This course extends Course 586, Introduction to JavaScript, to dynamic and event-driven programming. Participants will create dynamic web pages using the Document Object Model (DOM), dynamic programming techniques, cookies, arrays, regular expressions; interact with the browser for window re-sizing, scrolling, and manipulating the history list; work with multiple windows and frames; and interact with the keyboard and the printer.

### Learning Objectives...

- ❑ Create dynamic web pages using JavaScript.
- ❑ Use DOM effectively in creating dynamic web pages.
- ❑ Create dynamic menus, forms and tables.
- ❑ Perform advance form validation using regular expressions
- ❑ Develop applications that maintain state using cookies.

### Who should attend...

Internet application developers and Web designers with a background equivalent to that provided by Course 586, Introduction to JavaScript, who need to develop interactive web pages.

### Prerequisites...

Basic JavaScript constructs are assumed: data typing, statements, and control structures. Basic knowledge of HTML is assumed. Familiarity with forms and tables is helpful. Course 586, Introduction to JavaScript, provides a very good background for this course.



## Course Outline...

### Unit 1: JavaScript Review

- ❑ JavaScript setup, testing and debugging
- ❑ Data Types and variables in JavaScript
- ❑ Statement and control flow structures
- ❑ Basic event model
- ❑ Data manipulation: strings and numbers

### Unit 2: Advance Constructs

- ❑ Arrays
- ❑ Validation with regular expressions
- ❑ External Scripts
- ❑ Using function references
- ❑ Understand the use of event propagation, capturing, and rerouting

### Unit 4: Cookies

- ❑ Use the correct syntax for cookie request and response
- ❑ Use single and multiple cookies in JavaScript
- ❑ Session only cookies
- ❑ Client support

### Unit 5: JavaScript Object Model

- ❑ Understand the JavaScript object models
- ❑ Data from objects
- ❑ Modifying objects
- ❑ User created objects

### Unit 6: Dynamic Programming

- ❑ Tables: creating, sorting, and filtering
- ❑ Forms: modification forms
- ❑ Menus and popups

### Unit 7: Browser and Window Objects

- ❑ Moving, scrolling, and resizing
- ❑ onerror events
- ❑ How to use history object
- ❑ Working with multiple windows and frames



## **Unit 8: Style Sheets**

- ❑ Review of Cascading Style Sheets (CSS)
- ❑ JavaScript Interaction with CSS

## **Unit 9: Keyboard and Printer Interactions**

- ❑ Working with keyboard events
- ❑ Accessing the printer