



## **I. COURSE DESCRIPTION:**

Students will be writing comprehensive Client-Side web based applications using JavaScript technology. Students will learn JavaScript code that will be cross-browser compatible.

## **II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course the student will demonstrate the ability to:

### 1) Introduction to Java Script, Programming, HTML, and JavaScript

Potential Elements of the Performance:

- About the WWW
- What JavaScript is use for
- About Hypertext Markup Language
- How to create an HTML document
- About the JavaScript programming language
- About logic and debugging

### 2) A First JavaScript Program

Potential Elements of the Performance:

- About the <Script> tag
- How to create a JavaScript source file
- How to add comments to a JavaScript Program
- How to hide JavaScript from incompatible browsers
- About placing JavaScript in HEAD or BODY section of HTML documents

### 3) Working with Variables, Functions, and Events

Potential Elements of the Performance:

- How to declare and use variables
- How to define functions
- How to call functions
- How to use JavaScript objects
- How to use object inheritance and prototypes
- How to use object methods
- About variable scope

## 4) Using Events

Potential Elements of the Performance:

- About events
- About HTML tags and events
- How to use event handlers
- About links
- How to use link events
- How to create an image map

## 5) Using Data Types and Arrays

Potential Elements of the Performance:

- How to use data types
- About numeric data types
- About Boolean values
- How to use strings
- How to use arrays

## 6) Expressions and Operators

Potential Elements of the Performance:

- How to use expressions
- How to use arithmetic, assignment, comparison, logical and string operators
- How to create a calculator program

## 7) Decision Making

Potential Elements of the Performance:

- If statements
- If...else statements
- Switch statements

## 8) Repetition

Potential Elements of the Performance:

- While statements
- Do...while statements
- For statements
- For...in statements
- With statements
- Continue statements

## 9) Working with Windows

Potential Elements of the Performance:

- About the JavaScript object model
- About the Window object
- How to open and close windows
- How to work with timeouts and intervals

## 10) Working with Forms in JavaScript

Potential Elements of the Performance:

- How to use HTML forms
- About the Common Gateway Interface
- How to use the <FORM> tag
- About form elements
- How to create and use input fields
- How create selection lists
- How to create multiline text fields

## 11) Dynamic Object Model

Potential Elements of the Performance:

- About dynamic HTML
- About the document object model
- About document object properties and methods
- About the image object
- About the animation with the image object
- About image caching

## 12) State Information and Cookies

Potential Elements of the Performance:

- About state information
- About the string object
- How to create and read cookies

### 13) Basic Debugging Techniques

Potential Elements of the Performance:

- About debugging concepts
- How to interpret error messages
- How to trace errors

### 14) Netscape LiveWire

Potential Elements of the Performance:

- About client/server architecture
- About server-side JavaScript development
- How to create LiveWire app's
- How to create a Guest Book using LiveWire

### 15) Overview of Database and Connecting to Databases with LiveWire

Potential Elements of the Performance:

- How to execute SQL commands with LiveWire
- How to create transaction processing with LiveWire

## IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

JavaScript 2ed., Thompson Learning, by Don Gosselin

## V. EVALUATION PROCESS/GRADING SYSTEM

The mark for this course will be derived from the following:

Quizzes	4 @ 15%
Assignments	4 @ 8%
<u>Participation</u>	<u>8%</u>
	100%

A+	90 – 100%
A	80 – 89%
B	70 – 79%
C	60 – 69%
R	Repeat
X	Incomplete

## VI. SPECIAL NOTES:

- **Special Needs**  
If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.
- **Retention of Course Outlines**  
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.
- **Disclaimer for Meeting the Needs of the Learners**
- **Substitute Course Information is available at the Registrar's Office.**
- **Any Other Special Notes appropriate to your course.**

## **VII. PRIOR LEARNING ASSESSMENT**

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following: