SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY SAULT STE MARIE, ON
Course Title: Web Programming
<u>Code No.</u> : CSD315 <u>Semester</u> : Five
Program: Computer Programmer/Analyst
Author: Willem de Bruyne
Date: May 2001 Previous Outline Date: January 2001
Approved: Dean Date
Total Credits: 6Prerequisite(s): CSD300Length of Course: 16wksTotal Credit Hours: 80
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# I. COURSE DESCRIPTION:

Students will be guided on how to develop Web applications using the JavaScript and VBScript programming languages as well as grasp the ASP technology.

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# 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

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## 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

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- 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 multilane 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

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## 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, 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 8%</u> 100% A+ 90 - 100% A 80 - 89% B 70 - 79% C 60 - 69% R Repeat

X Incomplete

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#### 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: