

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**COURSE OUTLINE**

**COURSE TITLE: Web Scripting Languages**

**CODE NO. : CSD212 SEMESTER: 2 & 4**

**PROGRAM: All I.T. Studies Students**

**AUTHOR: Dennis Ochoski**

**DATE: Jan 2014 PREVIOUS OUTLINE DATED: June 2012**

**APPROVED:**

	_____ Chair	_____ DATE
<b>TOTAL CREDITS:</b>	<b>Four</b>	
<b>PREREQUISITE(S):</b>	<b>CSD120</b>	
<b>HOURS/WEEK:</b>	<b>Three</b>	

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(705) 759-2554, Ext. 2688*

**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. The course content will focus on; using JavaScript with well-formed Web pages; work with JavaScript variables and data types and learn how to use the operations that can perform them; add functions, events, and control structures; use the browser object model; ensuring data that is entered into Web forms is correct before sending to the server; use object oriented programming techniques; manipulate data in strings and arrays; saving state information. It is assumed that student has a good knowledge of XHTML.

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

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

**1. Introduction to JavaScript**Potential Elements of the Performance:

- Study the history of the WWW
- Work with structured Web Pages
- Learn about the JavaScript programming language
- Add structure to your JavaScript programs
- Learn about logic and debugging

**2. Functions, Data Types and Operators**Potential Elements of the Performance:

- Work with variables
- Learn how to use functions to organize your JavaScript code
- Study data types
- Use expressions and operators
- Work with strings
- Study operator precedence

### 3. Building Arrays and Control structures

#### Potential Elements of the Performance:

- Store data in arrays
- Use if statements, if . . . else statements, and switch statements to make decisions
- Nest one if statement in another
- Use while statements, do . . . while statements, and for statements to repeatedly execute code
- Use continue statements to restart a looping statement

### 4. The Browser Object Model

#### Potential Elements of the Performance:

- Study the browser object model
- Work with the Window object
- Study the History, Location, and Navigator objects
- Use JavaScript to refer to windows and frames

### 5. Validating Form Data with JavaScript

#### Potential Elements of the Performance:

- Study form elements and objects
- Use JavaScript to manipulate and validate form elements
- Learn how to submit and reset forms
- Learn how to validate submitted form data

### 6. Object Oriented JavaScript

#### Potential Elements of the Performance:

- Study object-oriented programming
- Learn about the built-in JavaScript objects
- Work with the Date, Number, and Math objects
- Define custom JavaScript objects

## 8. Debugging JavaScript

### Potential Elements of the Performance:

- Study debugging concepts
- Learn how to trace error messages
- Learn how to use comments to locate bugs
- Use the Microsoft Script Debugger
- Study additional debugging techniques

## 8. Managing State and Information Security

### Potential Elements of the Performance:

- Learn about state information
- Save state information with hidden form fields, query strings, and cookies
- Learn about security issues

### **III. TOPICS:**

1. Introduction to Java Script
2. Functions, Data types and operators
3. Building Arrays and Control Structures
4. The Browser Object Model
5. Validating Form Data with JavaScript
6. Object Oriented JavaScript
7. Debugging JavaScript
8. Cookies and Security
9. Introduction to the Document Object Model (DOM)
10. Dynamic HTML (DHTML)

### **IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

JavaScript: The Web Technologies Series 5th Edition  
Don Gosselin  
ISBN10: 0-538-74887-7, ISBN13: 978-0-538-74887-2

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Quizzes & Tests	70%
Assignments	<u>30%</u>
	100%

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**VI. OTHER EVALUATION CONSIDERATIONS**

- In order to pass this course the student must obtain an overall test/quiz average of **50%** or better, as well as, an overall assignment average of **50%** or better. A student who is not present to write a particular test/quiz, and does not notify the professor beforehand of their intended absence, may be subject to a zero grade on that test/quiz.
- There will be **no** supplemental or make-up quizzes/tests in this course unless there are extenuating circumstances.

3. Assignments must be submitted by the due date according to the specifications of the professor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the professor in cases where there were extenuating circumstances.
4. Any assignment/projects submissions, deemed to be copied, will result in a **zero** grade being assigned to **all** students involved in that particular incident.
5. It is the responsibility of the student to ask the professor to clarify any assignment requirements.
6. The professor reserves the right to modify the assessment process to meet any changing needs of the class.

## VII. SPECIAL NOTES:

### Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. *It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers may not be granted admission to the room.*

Absences due to medical or other unavoidable circumstances should be discussed with the professor, otherwise a penalty may be assessed. The penalty depends on course hours and will be applied as follows:

Course Hours	Deduction
5 hrs/week (75 hrs)	1.0% /hr
4 hrs/week (60 hrs)	1.5% /hr
3 hrs/week (45 hrs)	2.0% /hr
2 hrs/week (30 hrs)	3.0% /hr

Final penalties will be reviewed and assessed at the discretion of the professor.

## VIII. COURSE OUTLINE ADDENDUM:

This document (**CourseOutlineAddendum.docx**) can be found along with the course outline on *Desire2Learn (D2L)*.

