

I. COURSE DESCRIPTION:

CICE students, with assistance from a Learning Specialist, will be introduced to Client-Side web based applications using JavaScript technology. CICE 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 learning how to use the operations that will enable the CICE student to assist with the following; 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 basic knowledge of XHTML.

II. Upon successful completion of this course, the CICE student, with the help of a Learning Specialist, will demonstrate the basic ability to**1. Introduction to JavaScript****Potential Elements of the Performance:**

- Describe the differences between client-side and server-side scripting
- Understand the components of a JavaScript statement Add basic JavaScript code to your web pages
- Structure your JavaScript programs

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

- Use functions to organize your JavaScript code
- Use expressions and operators
- Identify the order of operator precedence in an expression

3. Building Arrays and Control structures**Potential Elements of the Performance:**

- Store data in arrays
- Use while statements, do/while statements, and for statements to repeatedly execute code
- Use continue statements to restart looping statements
- Use if statements, if/else statements, and switch statements to

- make decisions
- Nest one if statement in another

4. Debugging and Error Handling

Potential Elements of the Performance:

- Recognize error types
- Trace errors with dialog boxes and the console
- Use comments to locate bugs
- Trace errors with debugging tools
- Write code to respond to exceptions and errors

5. The Document Object Model (DOM) and DHTML

Potential Elements of the Performance:

- Access elements by id, tag name, class, name, or selector
- Access element content, CSS properties, and attributes
- Add and remove document nodes
- Create and close new browser tabs and windows with an app
- Use the setTimeout() and setInterval() methods to specify a delay or a duration
- Use the History, Location, Navigation, and Screen objects to manipulate the browser window

6. Enhancing and Validating Forms

Potential Elements of the Performance:

- Enhance form usability with JavaScript
- Customize browser-based HTML validation
- Implement custom validation to check for errors and display error messages

7. Object Oriented JavaScript

Potential Elements of the Performance:

- Explain basic concepts related to object-oriented programming
- Use the Date, Number, and Math objects
- Define your own custom JavaScript objects

8. Manipulating Data in Strings and Arrays

Potential Elements of the Performance:

- Manipulate strings with properties and methods of the String object
- Create regular expressions and use them to validate user input
- Manipulate arrays with properties and methods of the Array object
- Convert between strings and arrays, and between strings and JSON

III. TOPICS:

1. Introduction to Java Script
2. Functions, Data Types and Operators
3. Building Arrays and Control Structures
4. Debugging and Error Handling
5. Introduction to the Document Object Model (DOM)
6. Enhancing and Validating Forms
7. Object Oriented JavaScript
8. Manipulating Data in Strings and Arrays

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

JavaScript: The Web Technologies Series 6th Edition
By Sasha Vodnik and Don Gosselin
ISBN-13: 978-1-305-07844-4

V. EVALUATION PROCESS/GRADING SYSTEM:

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

The following semester grades will be assigned to students:

Grade	Definition	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	below 50%	0.00
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

1. 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.

2. 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.

All tests and assignments will be completed with the assistance of the Learning Specialist. Any modifications to the tests and assignments will be proposed by the Learning Specialist and are subject to approval from the professor

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

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.

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

VIII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.

CICE Modifications:**Preparation and Participation**

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.***The Learning Specialist may:***

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.