

I. COURSE DESCRIPTION:

The Advanced Web Applications courses uses the content taught in previous courses that delivered the XHTML, as well as the introduction to JavaScript course as a foundation to the every expanding web application technology that fuels everything from personal computing, to corporate applications required to meet the world business needs. This course will focus on two popular areas of web application development: Advanced JavaScript, and JQuery. Students will be collaborating in small groups, as well as polish their presentation skills.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Review 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

2. Using 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

3. 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

4. Introduction to the Document Object Model (DOM)

Potential Elements of the Performance:

- Learn about dynamic Web pages
- Study the Document Object Model (DOM)
- Work with the Image object
- Create animation with the Image object
- Learn how to cache images

5. **Creating Dynamic HTML (DHTML)**

Potential Elements of the Performance:

- Use JavaScript to modify CSS styles
- Work with CSS positioning
- Create DHTML menus

6. **Using JQuery**

Potential Elements of the Performance:

- Select elements using jQuery syntax
- Use built-in jQuery functions

III. TOPICS:

1. Review Validating Form Data with JavaScript
2. Object Oriented JavaScript
3. Cookies and Security
4. Introduction to the Document Object Model (DOM)
5. Creating Dynamic HTML (DHTML)
6. JQuery

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	60%
Assignments & Presentations	40%

The following semester grades will be assigned to students:

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

F (Fail)	49% and below	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.	

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.

VI. 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.

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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.

VII. COURSE OUTLINE ADDENDUM:

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