

COURSE NAME: JavaScript I
COURSE CODE: CPSC1520

## **COURSE DESCRIPTION**

This course will help to prepare students for modern web development by creating dynamic websites using JavaScript. In this course, students will learn about the basics of the JavaScript language and how to implement client-side JavaScript to create an interactive user experience. Students will be shown how to handle client-side events, validate form input, work with dynamic content, and implement timers. Additional topics covered will include the Document Object Model (DOM), Asynchronous JavaScript and XML (AJAX), and JavaScript Object Notation (JSON). Students will also be introduced to leading JavaScript libraries (e.g. jQuery).

Hours: 90

Course Credits: 4.5

Prerequisites: COMP1017 Web Design Fundamentals I

Co-Requisites: DMIT1530 or CPSC1517

Instructor:

Name: James Foley Email: jimf@nait.ca Phone: 780.378.5356

## LEARNING OUTCOMES

OUTCOME	Upon successful completion of this course, you will be able to
1	Create and manipulate the Document Object Model
2	Develop simple website interactions with JavaScript
3	Employ AJAX to load dynamic data into a website
4	Implement solutions using JavaScript Object Notation (JSON) format
5	Design dynamic web pages with JavaScript

# STUDENT EVALUATION

OUTCOME(S)	Evaluation Type	Percentage
1, 2, 3, 4, 5	Online Quizzes	30%
1, 2, 3, 4, 5	In-Class Exercises	30%
1, 2, 3, 4, 5	Lab Assessments	40%
	Total	100%

## **COMPLETION REQUIREMENTS**

A student must achieve a minimum average of 50% overall in order to achieve credit for this course.

# REQUIRED LEARNING RESOURCES

Haverbeke, M. (2014). Eloquent JavaScript (3<sup>rd</sup> ed).

## OPTIONAL LEARNING RESOURCES

- Douglas Crockford. Javascript: The Good Parts: O'Reilly/Yahoo! Press, ISBN 978-0-596-51774-8, First Edition.
- Students who wish to work outside of class and tutorial (if available) hours will require their own PC/Mac with the appropriate software packages installed

## **DELIVERY METHOD**



This course will be taught using a variety of delivery methods, which may include face-to-face, online, or blended teaching platforms. Activities such as collaborative exercises/assignments, seminars, labs, discussion, audio/visual presentations, case studies, and/or practicum may be used to support learning.

# STUDENT EVALUATION - BREAKDOWN

Lab Assignments/In-Class Exercises

Lab Assignment	s/In-Class Exercises	
DUE DATE	ACTIVITY DESCRIPTION	MARK DISTRIBUTION
Week 1	Exercise - JavaScript intro and Console access	5%
Week 3	Exercise - Introduction to functions and event listeners	5%
Week 5	Exercise - Data types and making decisions	5%
Week 6	Assignment - demonstrate understanding of the basic decisions structures, basics of DOM access, and event listeners	10%
Week 8	Exercise - Loops and arrays/lists	5%
Week 9	Assignment - demonstrate understanding of basic repetition structures, arrays, and node lists	10%
Week 11	Exercise - DOM APIs and timing	5%
Week 12	Assignment - demonstrate understanding of DOM APIs and timing functions	10%
Week 14	Exercise - AJAX and JSON	5%
Week 15	Assignment - demonstrate understanding of DOM APIs, AJAX, and JSON	10%
	Total	70%



**Theory Assessments** 

DUE DATE	ACTIVITY DESCRIPTION	MARK DISTRIBUTION
Week 2	Quiz: covers material up to and including the introduction to JavaScript	5%
Week 4	Quiz: covers material up to and including functions and events	5%
Week 7	Quiz: covers material up to and including decisions and expressions	5%
Week 10	Quiz: covers material up to and including arrays and lists	5%
Week 13	Quiz: covers material up to and including DOM API	5%
Week 15	Quiz: covers material up to and including AJAX and JSON	5%
	Total	30%

## STUDENT RESPONSIBILITY

Enrolment at NAIT assumes that the student will become a responsible citizen of the Institute. As such, each student will display a positive work ethic, assist in the preservation of Institute property, and assume responsibility for his/her education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting instructor expectations concerning attendance, assignments, deadlines, and appointments.

#### **EQUITY STATEMENT**

NAIT is committed to providing an environment of equality and respect for all people within the learning community, and to educating faculty, staff, and students in developing inclusive teaching and learning contexts that are welcoming to all.

Changes to This Course Outline: Every effort has been made to ensure that information in this course outline is accurate at the time of publication. The Institute reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.