

Course Outline

Full-Stack Developer – LEA.BN

A. General Information

Course title	User Interfaces
Course number	420-WC4-AB
Hours	60
Ponderation <i>Ratio of lecture, practical and homework hours</i>	2-2-3
Credits	2.33
Competency statement(s) and code(s)	00ST Develop non-transactional Web applications. Element 6 only: 00ST.6 Program the client-side application logic.
Prerequisite (s)	420-WB4-AB Web Design 420-SA5-AB Database
Cohort	FSD-05
Start date	2022-08-01
End date	2022-08-16
Day(s) and times	M-F, 9:00 – 2:30 PM
Classroom/lab number	Online
Semester	Summer
Teacher	Khattar Daou, Ph.D.
Teachers' contact info	Khattar.Daou@JohnAbbott.qc.ca
Course format (F2F, online, hybrid)	

B. Introduction

This course is part of the Full-Stack Developer program leading to an Attestation of Collegial Studies (A.E.C.). It should be taken in the Second semester of the program.

This course continues developing website design skills by utilizing JavaScript scripting language that enables Web Designers to develop highly interactive Web-based user interfaces. Students will learn how to use JavaScript for modifying the Document Object Model, event handling, controlling animation, forms verification, timers and counters. The course will then focus on additional libraries. The jQuery library will be used to add GUI widgets, apply effects, make server-side requests, and handle incoming data. A JavaScript framework will be introduced to assist in building user interfaces

C. Course Objectives

By the end of this course, students should be able to perform the following:

00ST	
Statement of the Competency	Achievement Context
Develop non-transactional Web applications.	<ul style="list-style-type: none"> For Web applications associated with information delivery, marketing, etc. For new applications and applications to be modified Based on design documents Using images Using issue tracking and version control procedures
Elements of the Competency	Performance Criteria
6. Program the client-side application logic.	<ul style="list-style-type: none"> Correct manipulation of DOM objects Proper programming of interactions between the Web interface and the user Proper programming and integration of animations and widgets

D. Evaluation Plan

Evaluation task	%	Approximate date	Link to competency(ies) and element(s)	Select if part of the final evaluation!
In-Class Activities Week One	10	Class 5	6	<input type="checkbox"/>
In-Class Activities Week Two	10	Class 10	6	<input type="checkbox"/>
Take Home Assignment	20	Class 6		
Test 1	10	Class 7	6	<input type="checkbox"/>
Team Project	30	Class 12	1-6	<input type="checkbox"/>
Test 2	20	Class 12	1-6	<input type="checkbox"/>

E. Course Content and Schedule

Course Content

Introduction to JavaScript Introduction to User Interfaces Modifying the Document Object Model Event handling Controlling animation Validating Forms jQuery AJAX	pattern :
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Schedule

Date or class	Topic(s)	Additional info	F2F	Online
Class 1	<i>Introduction to JavaScript (ECMAScript)</i>	8/1	<input type="checkbox"/>	<input type="checkbox"/>
Class 2	<i>Syntax and Statements</i>	8/2	<input type="checkbox"/>	<input type="checkbox"/>
Class 3	<i>Control Structures</i>	8/3	<input type="checkbox"/>	<input type="checkbox"/>
Class 4	<i>Built-in Objects and Functions</i>	8/4	<input type="checkbox"/>	<input type="checkbox"/>
Class 5	<i>User-Defined Functions (UDF)</i>	8/5	<input type="checkbox"/>	<input type="checkbox"/>
Class 6	<i>Arrays</i>	8/8	<input type="checkbox"/>	<input type="checkbox"/>
Class 7	<i>Document Object Model (DOM)</i>	8/9	<input type="checkbox"/>	<input type="checkbox"/>
Class 8	<i>Enhancing and Validating Forms</i>	8/10	<input type="checkbox"/>	<input type="checkbox"/>
Class 9	<i>AJAX Foundations</i>	8/11	<input type="checkbox"/>	<input type="checkbox"/>
Class 10	<i>Working on the Project</i>	8/12	<input type="checkbox"/>	<input type="checkbox"/>
Class 11	<i>Working on the Project</i>	8/15	<input type="checkbox"/>	<input type="checkbox"/>
Class 12	<i>Presentations</i>	8/16	<input type="checkbox"/>	<input type="checkbox"/>

F. Required Textbooks / Materials / Costs

Title / Item	Cost \$
Technical requirements for this course (hardware, software, High speed Internet connection, etc.)	

G. Bibliography (books, articles, videos, websites, podcasts, etc.)

- Draft ECMA-262 / July 30, 2022 ECMAScript® 2023 Language Specification
<https://tc39.es/ecma262/multipage/>
- Standard ECMA-262 ECMAScript 2021 Language Specification
[ECMA-262 - Ecma International \(ecma-international.org\)](https://ecma-international.org/ecma-262/)
- MDN Web Docs
<https://developer.mozilla.org/en-US/docs/Glossary/JavaScript>
- The Modern JavaScript Tutorial
<https://javascript.info>
- JavaScript Tutorial <http://cs.brown.edu/courses/bridge/1998/res/javascript/javascript-tutorial.html>
- TypeScript is JavaScript for Any Scale
<https://www.typescriptlang.org>

H. Teaching Methods

The course is a combination of theory and labs. Students will:

- Work alone
- Work in groups

The course requires your individual presence and your active, consistent and sustained participation in your individual work.

Your individual responsibilities are to complete the work assigned and be ready to work at the start of each class. Léa, the course management system within Omnivox, will be used in this course.

Learning Activities:

- Lectures/Demonstrations: Discussion is encouraged as is student-procured, outside material relevant to topics being covered.
- Hands-On Exercises/Assignment/Project: Case problems, concepts reviews, and skills practice, will help support and reinforce material in the course. These will be structured to be as realistic as possible given the time available.
- Tests
- Group Project
- Classroom Activity: Participation and Discussion

I. Departmental Policies and Classroom Policies

Classroom Policies

Late submission of work

Work submitted late will result in a 10% deduction from the grade, per calendar day.
Classroom behaviour
Online etiquette

Departmental Policies

Please refer to the following document concerning policies in place at the Centre for Continuing Education:

[Continuing Education Policies and Guidelines](#)

(version: December 1, 2020)

A. College Policies

Please refer to the following document concerning the provisos related to course outlines as a response to Covid-19.

[Provisos for Course Outlines \(Covid-19\)](#)

(version: winter 2022)

Topic	Resource
Student rights and responsibilities (see articles 3.2 and 3.3)	Policy 7:IPESA - Institutional Policy on the Evaluation of Student Achievement (version: June 12, 2019)
Changes to evaluation plan in the course outline (see article 5.3)	
Religious holidays (see article 4.1)	
Cheating and plagiarism (articles 9.1 and 9.2)	
Cheating and plagiarism	Academic Integrity: Cheating and Plagiarism Procedure (version: October 22, 2021) You will need to log into Omnivox to access this document.
Code of conduct	Policy 13: Policy on Student Conduct and Discipline Procedures (version: September 21, 2021)

DISCLAIMER: Policies may be updated during the academic year. Should a link in the section above no longer work, please refer to the college website: <https://www.johnabbott.qc.ca/the-college/official-documents/>