



Full Stack JavaScript Development

Professional Development Certificate

*Made by
the desire to make
an impact*

MADE
by McGill

Offered by the McGill School of Continuing Studies

Full Stack *JavaScript* *Development*

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Career Spotlight: Web Development

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in Full Stack JavaScript Development

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Careers Spotlight: Web Development

Salaries: Data Scientist

- Entry Level Salary: CAD \$41,000
- Median Mid-Level Salary: CAD \$60,000
- Median Senior-Level Salary: CAD \$90,000

Source: Glassdoor

One of today's fastest growing careers, web development plays a critical role in businesses and organizations across all sectors helping them to achieve their objectives through creation, management and optimization of websites, e-commerce platforms and web and mobile applications

According to data from [Emsi Labour Marketing Analytics](#), the job market for web developers in Canada is set to grow by 7.3% by 2026 and as high as 9.3% in the province Quebec.

As COVID-19 radically changes our reality, more and more businesses are switching to e-commerce. Those without a strong e-commerce portal and associated infrastructure will need to build them out quickly. As a result, we can expect that demand for qualified web developers will only grow in the coming years.

Key Facts

- **10,900:** Expected number of job openings for web designers and developers between 2019-2028 ([Government of Canada](#)).
- **7.3%:** Estimated growth for the job market in Canada by 2026 ([Emsi](#)).
- **9.3%:** Estimated growth for the job market in Quebec by 2026 ([Emsi](#)).
- **Quebec #1:** Top province in terms of e-business web site developer job offers in Canada ([Government of Canada, June 2020](#)) with 23% more jobs than the national average ([EMSI](#)).
- **USD \$40.0 Billion:** Size of US market for web design services ([IBISworld.com](#)).

Careers in Web Development

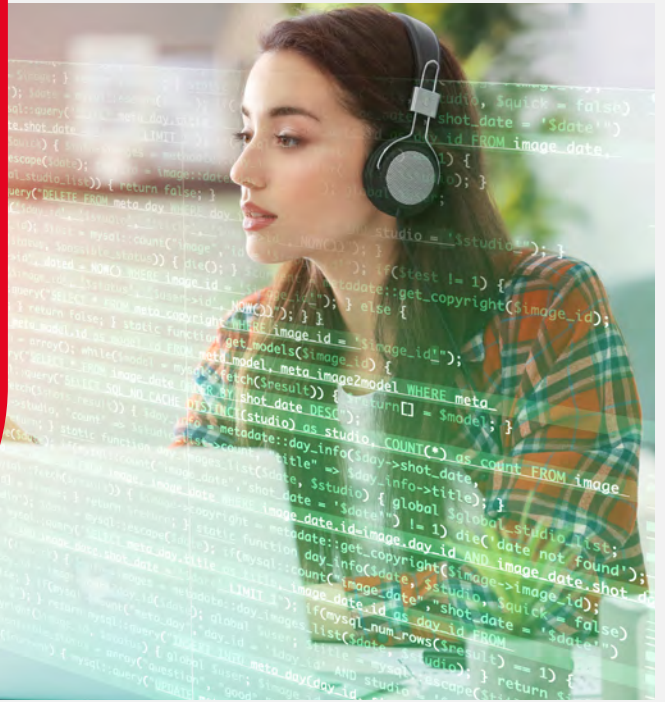
- Front End Developer
- Back End Developer
- Full Stack Developer
- Web Developer
- Software Developer



Professional Development Certificate

Full Stack JavaScript Development

Part-Time Evening Program



Non-Credit



Courses



Part-Time



Evenings &
Some Saturdays



2-2.5
Years to
Complete



In-Class

The *Professional Development Certificate in Full Stack JavaScript Development* is a non-credit program that aims to equip participants with the knowledge and skills required to create modern interactive website and applications for a variety of needs and objectives.

Designed to offer a cutting-edge approach to learning and mastering the critical skills required to excel in a career as a Full Stack Web Developer, the program covers both client and server side JavaScript frameworks required to develop complete web applications with focus placed on JavaScript, HTML5, CSS3, ReactJS, Node.js, ExpressJS and SQL.

The part-time evening program is ideal for working professional looking to pursue their studies without leaving their job.

Classes are held in live virtual sessions and are generally scheduled in the evening from 6 - 9 p.m. ET and some Saturdays from 9 a.m. - 4 p.m. ET.



Apply Now

Full Stack JavaScript Development

13-Week Intensive Program



Non-Credit



Courses



Intensive



Evenings



Weeks to
Complete



In-Class

Our new 13-week intensive program offers all the benefits of this *Professional Development Certificate* in a condensed format, allowing you to devote yourself to learning full stack web development and prepare to enter the workforce in just 13 weeks.

Like the part-time format, the intensive version of the *Professional Development Certificate in Full Stack JavaScript Development* is a non-credit program that aims to equip participants with the knowledge and skills required to create modern interactive website and applications for a variety of needs and objectives.

Designed to offer a cutting-edge approach to learning and mastering the critical skills required to excel in a career as a Full Stack Web Developer, the program covers both client and server side JavaScript frameworks required to develop complete web applications with focus placed on JavaScript, HTML5, CSS3, ReactJS, Node.js, ExpressJS and SQL.

This program is offered over a period of 13 weeks including a 1-week break. Classes are held daily, Monday to Friday, from 10 a.m. - 4 p.m. ET (total of 5 class hours per day).



Apply Now

Full Stack *JavaScript* *Development*



Learning Outcomes

This program is designed to enable you to:

- Think like a computer so you're able to "get inside the mind" of software systems and understand how to communicate your intent in a way that is understandable to a computer.
- Turn images or designs into functional websites.
- Build web applications that communicate with other computers in real time.
- Plan, deploy and maintain databases and manage webserver/database communication.
- Uncover the root cause of software issues and take corrective action.
- Build the full skill set needed to plan, build, test and debug interactive websites and web applications for various devices and device types according to current industry standards.
- Acquire a sufficient level of mastery to launch or advance your career in this fast-growing field.

Why Enrol?

- Benefit from a cutting-edge approach to learning and teaching
- Choose from 2 options: a part-time evening format or an intensive full-time format.
- Equip yourself with the skills required to excel as a full stack web developer thanks to a practical approach based on learning by doing.
- Learn from active industry practitioners and experienced developers.
- Add internationally recognized credentials from McGill University to your CV.

Program Toolkit & Languages

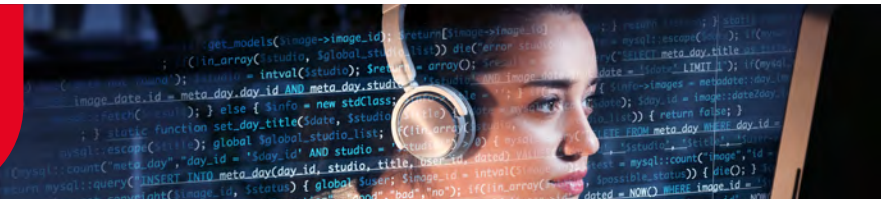
Key tools and languages include:

- HTML 5, CSS 3, JavaScript
- flexbox, grid
- ReactJS, React Router, Redux
- NodeJS, ExpressJS, PostgreSQL
- Git, Github
- Npm
- Async/await



[Apply Now](#)

Curriculum / Course Descriptions



YCIT 001

HTML & CSS

5 CEUs

HTML5, CSS3, HTML elements, the box model, common CSS properties and selectors, common HTML tags. Creating mobile responsive websites. 30 hours class + approximately 20 hours of assignments.

YCIT 023

Structure and interpretation of JavaScript

5 CEUs

Syntax and semantics of JavaScript programs. Relationship between code, stack frames, the heap, the console and the call stack. Breaking down code into smaller pieces. Functions, arrays, objects, references, and primitives. Building a correct mental model of computation. 30 hours class + approximately 20 hours of assignments.

YCIT 025

Reading and Debugging JavaScript

5 CEUs

Reading code correctly and quickly as it is interpreted by a computer. Interpreting runtime errors and using them to identify mistakes in the code. Debugging through console.log. Fixing syntax errors. Building automatic reflexes when faced with unexpected computer program behaviour. 30 hours class + approximately 20 hours of assignments.

YCIT 026

Applied Algorithms in JavaScript

5 CEUs

Common data structures; using data structures to solve coding problems; approaches to algorithm questions. Strategies for technical job interview questions. 30 hours class + approximately 20 hours of assignments.

YCIT 027

Front End JavaScript and Asynchronous Programming

5 CEUs

Using JavaScript to handle user events and modify the Document Object Model (DOM). Modifying the user interface based on Application Programming Interface (API) responses using Asynchronous JavaScript and XML (AJAX). 30 hours class + approximately 20 hours of assignments.



Curriculum / Course Descriptions



YCIT 028

5 CEUs

Introduction to *ReactJS*

Relationship between the virtual Document Object Model (DOM), actual DOM, state, props and code. React elements, hooks, Webpack, Babel and functional components. 30 hours class + approximately 20 hours of assignments.

YCIT 029

5 CEUs

Node.js and APIs

TCP/IP, structure of Hypertext Transfer Protocol (HTTP) requests and responses, reading Application Programming Interface (API) documentation, making requests to APIs, creating APIs using Node.js. 30 hours class + approximately 20 hours of assignments. Not open to students who have taken YCIT 012.

YCIT 030

5 CEUs

Advanced *ReactJS*

Using ReactJS to create large web projects containing multiple pages and components. Inter-component communication using Redux. Using Asynchronous JavaScript and XML (AJAX) with ReactJS. 30 hours class + approximately 20 hours of assignments.

YCIT 031

5 CEUs

Database for the Web

Structure and interpretation of SQL. Creating a schema for an SQL database. Running a Relational Database Management System (RDBMS). Populating a RDBMS with data. Writing a webserver in Node.js connected to an RDBMS. 30 hours class + approximately 20 hours of assignments. Not open to students who have taken YCIT 009.

YCIT 099

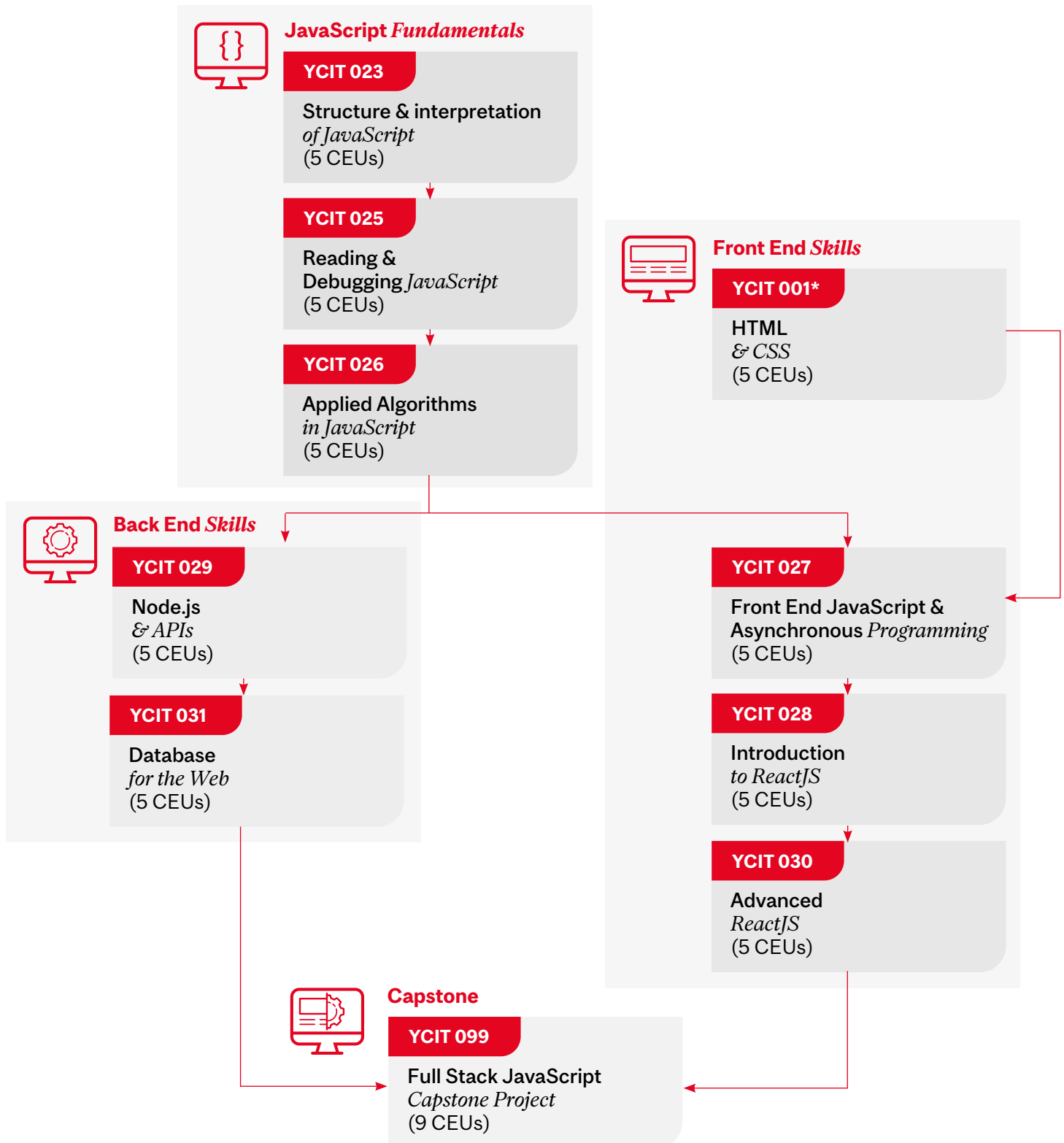
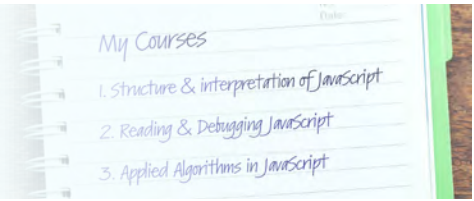
5 CEUs

Full Stack JavaScript *Capstone Project*

Development and deployment of a full stack JavaScript project incorporating both the back end and front end elements of a web application. 30 hours in class + approximately 60 hours of project work.



Course Sequence



*This course can be taken in parallel with any of the JavaScript fundamentals courses.



Admission Requirements



Programming
Aptitude Test



Years of age
or older

1. All applicants must complete and pass an online [Programming Aptitude Test](#) at no cost.
2. Applicants must be at least 18 years of age or older.
 - Applicants between the ages of 18-21 must hold a minimum of:
 -  Applicants from Quebec: Diploma of College Studies (DCS) / Diplôme d'études collégiales (DEC), or the equivalent*
 -  Applicants with international credentials or from other Canadian Provinces: 1 year of full-time university studies.
 - Applicants between 18-21 who do not meet the above requirements may still apply and will be evaluated on a case-by-case basis.
 - Applicants who are 21 years of age or older may be admitted as mature students



* Equivalent: 1 year of full time university studies (30 credits)

Tuition Fees



Application Fee

The fee to submit an application for admission to a Professional Development Program is \$92.30 (non-refundable).

SCS Career Development Success Package (SCSD)

In addition to each course fee, students pay an additional fee for the Career Development Success Package. For more information on this fee, visit mcgill.ca/scs/pdc-fees



Course Fees

YCIT 001 HTML & CSS (5 CEUs)	\$ 1,095.00
YCIT 023 Structure and interpretation of JavaScript (5 CEUs)	\$ 1,095.00
YCIT 025 Reading and Debugging JavaScript (5 CEUs)	\$ 1,095.00
YCIT 026 Applied Algorithms in JavaScript (5 CEUs)	\$ 1,095.00
YCIT 027 Front End JavaScript and Asynchronous Programming (5 CEUs)	\$ 1,095.00
YCIT 028 Introduction to ReactJS (5 CEUs)	\$ 1,095.00
YCIT 029 Node.js and APIs (5 CEUs)	\$ 1,095.00
YCIT 030 Advanced ReactJS (5 CEUs)	\$ 1,095.00
YCIT 031 Database for the Web (5 CEUs)	\$ 1,095.00
YCIT 099 Full Stack JavaScript Capstone Project (9 CEUs)	\$ 1,095.00
Total	\$10,950.00

How to Apply



STEP 1: PREPARE

1. Choose the Professional Development Certificate you would like to apply to.
2. Ensure you have a valid email address and credit card on hand to pay the application fee (Visa, MasterCard or American Express).
3. From the [list of programs](#), select the certificate you would like to apply for. Click “Learn More”. Then click on “Apply Now” at the top of the page.
4. Review the admission requirements for the program to ensure you meet the criteria.
5. Ensure you have all necessary documentation required for your application as indicated in the “Documents Required” section.

STEP 2: APPLY

1. Scroll down and click on “Apply Now” in the righthand column of the screen.
2. Review the information displayed and click “Apply Now”.
3. If you have Athena credentials, log in. If not, create an account.
4. Complete the rest of the application with all required information.
5. Once you have applied online, you will receive a confirmation email acknowledging receipt of your application.

STEP 3: CHECK STATUS

1. You can check the status of your application at any time using [Athena](#).
2. Once a decision has been made, admitted students will receive a notification by email confirming their admission to the program, along with registration instructions. You can then register for courses online during the appropriate registration period.

Difficulty Applying Online?

If you have any problems with your online application, or if you have questions regarding admission requirements and procedures, [contact Client Services](#).

Apply Now

About the McGill *School of Continuing Studies*



Situated in the heart of Montreal on the main campus of one of Canada's leading universities, the McGill School of Continuing Studies offers innovative programs that aim to help adult learners gain the skills they need to launch their careers, advance their current careers or switch into a whole new field.

With over 70 programs in more than 25 subjects such as marketing, management, human resources, accounting, finance, data science and AI, the School is dedicated to creating skilled, future-ready leaders who can thrive in a rapidly changing world.

[Learn More](#)



Contact


Career and Professional Development
(Non-Credit)

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Program information

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 **Learn more at**
mcgill.ca/scs-fullstack



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