

# Crafting Developers for Tomorrow's Web

## Web Application Development Co-op Diploma



WESTERN  
BRITISH COLUMBIA POLYTECHNIC  
COLLEGE

### ABOUT

This program is designed to provide a foundational understanding and practical skills of web application development and support students to prepare for coming careers in the modern IT industry. The objective is to equip students with foundational knowledge and hands-on skills in web application development, including programming languages, web, mobile, and cloud development tools.

### HIGHLIGHTS

- 12 Months
- 4 Months Work Experience

### START DATES

- January
- May
- September

### STUDY & WORK

#### Co-op

The Industry Placement (CPIP 1100) is a key component of the program, offering students valuable real-world experience in a professional environment. This four month Co-op equips students with the practical skills and training essential for their future careers.

#### Career Opportunities

Web Tester

Web Support Technician

UI/UX Assistant

Digital Production Assistant

and many more...

#### Semesters

Students become eligible for the Co-op after completing two semesters of study.



■ International Student may work up to 24 hours per week.

#### Courses

- Introduction to Web Application Development
- Algorithms and Data Structures
- Operating System
- Database Management
- OOP and Java
- C++ Programming Language
- Python Programming Language
- Communication Strategies
- Career and Professional Development
- RESTful API and Backend Development
- Web Frontend Development
- Advanced Web Development
- Android Frontend Development
- iOS Frontend Development
- Web Application on Cloud
- Software Engineering and Agile
- Cloud Application Development
- Industry Placement

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# Web Application Development

## Crafting Developers for Tomorrow's Web

### PROGRAM DESCRIPTION

The Web Application Development Diploma of Western British Columbia Polytechnic College is designed to provide a foundational understanding and practical skills of web application development and support students to prepare for coming careers in the modern IT industry.

The objective is to instruct students to learn a vast array of basic knowledge of web application development and hands-on skills and tools, including programming languages, web developments, mobile developments, cloud developments and so on.

The program focuses on developing the professional knowledge and skills required to develop successful careers in web-related industries as developers.

### PROGRAM OBJECTIVES

The Web Application Development program provides students with:

- **A solid knowledge of computer systems and web applications development.**
- **Professional skills in high demand by employers including communication and software project management.**
- **Practical skills to develop basic types of software applications.**
- **Learn how to prepare for professional development and career as software developers.**

### METHODS OF EVALUATION

- The evaluation of the students' course works is based on the course outline and assessed by instructors.
- In addition, students are required to complete 300 hours of co-op program.

### DELIVERY METHOD

In-Class Instruction

### Career Occupation

- Web Development Assistant
- Junior Web Content Editor
- UI/UX Assistant
- Digital Production Assistant
- Web Tester
- Web Support Technician



### GRADUATION REQUIREMENTS

Students have successfully earned 62 credits for the whole program including both coursework and co-op program.

### DIPLOMA PROGRAM

- **Total Program Hours: 930 hours**
- **Full Time Program Length: 46.5 weeks**

*(Includes holidays and professional days)*

*Program content is subject to change*

### PROGRAM FEE

#### DOMESTIC

Tuition: \$16,000  
Books: \$1,337  
Registration fee: \$200  
Material fee: \$300  
Application fee: \$100  
Assessment fee: \$100  
Taxes: \$82

**Total: \$18119**

#### INTERNATIONAL

Tuition: \$18,000  
Books: \$1,337  
Registration fee: \$500  
Material fee: \$300  
Application fee: \$200  
Assessment fee: \$250  
Taxes: \$82

**Total: \$20669**

### Contact Us:

(778) 869-9923

admin@wbcpcollege.ca

www.wbcpcollege.ca



## ADMISSION REQUIREMENTS

1. Aged at least 19 years of age.
2. Completion of Secondary Education (12 years, or equivalent) or mature student status, or postsecondary transfer.
3. International students must attend the Western British Columbia Polytechnic College Entrance Meeting AND provide one of the following:
  - CELPIP: Listening 6, Speaking 6, Reading 5, and Writing 5
  - IELTS Academic: overall 5.5
  - TOEFL IBT: 46

(Refer to Language Proficiency Policy for details)

## COURSE INFORMATION

Code	Course Name	Hours
SD 1100	Introduction to Web application Development <ul style="list-style-type: none"> <li>• Web application development principles</li> <li>• Identify and analyze several styles of software architectures</li> </ul>	22.5
SD 2100	Algorithms and Data Structures <ul style="list-style-type: none"> <li>• Data types and structure</li> <li>• Analyze algorithms to process data</li> </ul>	45
SD 1300	Operating System <ul style="list-style-type: none"> <li>• Foundation knowledge of computer operating systems</li> <li>• Program development in the operating systems</li> </ul>	45
SD 1400	Database Management <ul style="list-style-type: none"> <li>• Foundation knowledge of database management</li> <li>• SQL to operate data in the relational database</li> <li>• Basic operations of NoSQL database MongoDB</li> </ul>	45

Code	Course Name	Hours
SD 2100	OOP and Java <ul style="list-style-type: none"> <li>• Object-Oriented Programming(OOP)</li> <li>• Software development in Java language and OOP in Java application</li> </ul>	45
SD 2200	C++ Programming Language <ul style="list-style-type: none"> <li>• Software development in C++ language and OOP in C++ application</li> </ul>	45
SD 2300	Python Programming Language <ul style="list-style-type: none"> <li>• Functional programming and object-oriented programming in Python language</li> </ul>	22.5
GMGT 1500	Communication Strategies <ul style="list-style-type: none"> <li>• Self-awareness strategies</li> <li>• Active listening strategies</li> </ul>	45
GMGT 1700	Career and Professional Development	22.5
SD 3100	RESTful API and Backend Development <ul style="list-style-type: none"> <li>• RESTful API between frontend and backend</li> <li>• Backend server in NodeJS with MongoDB</li> </ul>	45
SD 3200	Web Frontend Development <ul style="list-style-type: none"> <li>• Foundation skills of HTML/CSS/Javascript</li> <li>• RESTful API from frontend to interact with backend</li> </ul>	45
SD 3300	Advanced Web Development <ul style="list-style-type: none"> <li>• React framework to build frontend application</li> </ul>	45
SD 3400	Android Frontend Development <ul style="list-style-type: none"> <li>• Foundation skills of Android application</li> </ul>	45
SD 3500	iOS Frontend Development <ul style="list-style-type: none"> <li>• Use SwiftUI to build iOS application</li> </ul>	45

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Code	Course Name	Hours
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SD 3600	Web Application on Cloud • Develop a full-stack web application • Deploy the applications on Cloud	22.5
SD 4100	Software Engineering and Agile • Software development LifeCycle • Agile methodology	22.5
SD 4200	Cloud Application Development • Deployment and testing process on Cloud • Continuous integration and continuous deployment (CI/CD) on AWS with GitHub	22.5
CPIP 1100	Industry Placement • Co-op work placement	300

### VIBRANT ECONOMY IN GREAT VANCOUVER

- Top start-up city as ranked by Startup Compass The Fourth greenest city in the world
- Vancouver is one of the top 10 lowest-risk cities in the world to recruit, employ, and redeploy business
- Vancouver is a magnet for global talent and investment, attracting over half a billion dollars in venture capital every year
- Supportive business environment



• **Economically Strong** – Vancouver boasts one of Canada's most dynamic economies. As the official gateway to the Pacific Rim, this British Columbian city serves as a crucial port and the main western terminus for transcontinental highway and rail networks. Over time, Vancouver has impressively shifted from its primarily resource-oriented economy to a diverse, knowledge-based one, making it the fastest-growing economy in Canada in recent years.



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• **Technology and Innovation** – Vancouver is home to about 75,000 of B.C.'s 100,000 tech professionals, making it a leading hub for innovation and startups. The city hosts over 10,000 tech companies with combined revenues exceeding \$23 billion, contributing \$15 billion to the province's GDP. With steady 6% annual growth, Vancouver continues to attract global talent and drive the expansion of the technology sector.

• **Social Diversity** – Vancouver's rich cultural mix is shaped by its social, racial, and ethnic diversity. About 52% of residents identify as visible minorities, and 46% speak a mother tongue other than English, creating a vibrant tapestry of languages, traditions, and heritage.

### STUDY EXPERIENCE

#### Zone Learning

Zone Learning is a cutting-edge approach to experiential education that allows students to apply their academic coursework to real-world startups, projects, and ventures. It's not just about acquiring knowledge; it's about gaining practical experience that will equip you for the demands of the 21st-century workforce. By joining Zone Learning, you're not just becoming part of a community, but you're also contributing to a movement that aims to shape the future.

If you're interested in becoming part of our dynamic and engaged community, there are numerous ways to get involved with Zone Learning, regardless of whether you have an idea for a startup or not.

### ABOUT US

Founded in 2010, Western British Columbia Polytechnic College (WBCPC) has over 1,000 alumni from 16+ countries. We attract students worldwide who share a vision for positive change in entrepreneurship, innovation, social development, and environmental sustainability. Our community of students, faculty, and alumni brings diverse perspectives to shape new ideas and real-world solutions.

With top-rated professors and industry-experienced lecturers, WBCPC blends academic excellence with practical learning. Students also benefit from value-added resources like the Entrepreneurship Center and Career Development Center, supporting both education and career success.

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