



# Software Development

Diploma Program | Course Length: 56 Weeks

The Software Development Diploma Program at ABM College is a 52 week course designed to prepare students with the necessary knowledge and innovative training to have a successful career post-graduation. Students learn industry standards and procedures, web development, network and design fundamentals, as well as scripting languages such as Java, JavaScript, Jquery and Python. The Online Software Development Program ends with a 4 week practicum where students apply their in-class learning to a real-world work environment in the software development industry. The purpose of the Software Development Diploma Program is to provide students with the foundational knowledge, innovative problem solving skills, experience and immersive training to fearlessly enter into one of the quickest-growing career paths in Canada.



### Engaging Course Material

Our industry-experienced Instructors introduce students to computer basics to build a sturdy foundation of knowledge before diving deeper into learning practical skills and fundamental knowledge of design, development, programming and scripting.

### Creative Portfolio Creation

Throughout our Software Development Diploma Program students have the opportunity to build a creative and original portfolio to stand out to potential employers and get hired.

### Combined Course Value

The hands-on training and in-depth knowledge gained through this course prepares students to excel in a number of technology-related industry careers.

## Program Description

Software Developers are in high demand due to the increasing number of tech businesses around the world. The ABM College Software Development Online Course teaches students to create interactive, industry-standard software and applications, including dynamic web pages and CSS animation. Students learn the basics of programming languages and become fluent in writing, editing and debugging code such as Java, JavaScript, Python, C, C++, C# and more.

After completion of the diploma in Software Development, students can confidently enter into the workforce with the knowledge and experience necessary to excel in their career.



### Learning Options

Online



### Length of Program

56 Weeks Total  
52 Weeks In-Class  
4 Weeks Practicum



### Class Availability

Evening

## Career Opportunities

- Software Developer
- Computer Programmer
- Database Administrator
- Software Development Engineer
- System Engineer
- System Analyst
- Web Technician

## Who Should Enrol?

The most effective software developers are creative, diligent, patient, hard working, detail-oriented, positive thinkers with a passion for technology and design. If this sounds like you, a career in software development could be the right one for you.

## Anticipated Salary Range

Software Developer

**\$63,377**

AVERAGE ESTIMATED  
STARTING WAGE  
PER YEAR

**\$105,000**

AVERAGE ESTIMATED  
EXPERIENCED WAGE  
PER YEAR



*\*This estimate is based on available employment data at the time.  
Actual salary will be based on numerous factors.*

## Admission Requirements

### Standard Admission

*Students must meet ALL of these criteria:*

Alberta High School Diploma or equivalent with English 30-1 or 60% in English 30-2 on verified transcript. Credit in Math 30-2 or higher, verified by transcript.

**-OR-**

General Equivalency Diploma (G.E.D.), plus successful interview with ABM College Administration.

### Mature Admission

*Students must meet ALL of these criteria:*

1. At least 18 years of age prior to admission (BC residents must be 19 years of age)
2. Score of 20 or higher on Entrance Exam (Scholastic Wonderlic)
3. Completed English 20-1 or equivalent with minimum score of 50%
4. Successful interview with ABM College Administration. If student's first language is not English, Canadian Language Benchmark of 6 with SLE Language Evaluation Test (Accuplacer).

## Contact Us

For more information and enrollment, contact an Admissions Advisor:

### Calgary:

Call: (403) 719-4300 or Toll Free: 1-800-840-9680

Email: [info@abmcollege.com](mailto:info@abmcollege.com)

Address: 112 28 Street SE, #200 Calgary, AB T2A 6J9





## Course Components

### 1. Programming Fundamentals (60 hours)

Students learn the foundations of computer programming that will provide students with a base to build core software development skills on. This module focuses on learning to analyze and solve problems to design solutions by creating programs to address those issues.

### 2. Introduction to Team Communications (20 hours)

Students gain practical skills in communications and the importance of working as a part of a team to solve problems. This course introduces students to the different roles within an IT project team, and industry-standard project management.

### 3. Computer Programming with C, C++, C# (120 hours)

This course focuses on the programming language, specifically C, C++ and C#. Students become familiar with the differences between each language to determine which is most suitable for industry-specific tasks.

### 4. NET Framework (80 hours)

Students learn how to understand, manipulate and utilize Microsoft Windows NET Framework, a software development framework created specifically for building and running applications.

### 5. UX and UI Design Fundamentals (40 hours)

In this course, students learn the best practices for designing an interface, using User Experience (UX) and User Interface (UI) design principles as a guide to build and maintain habits and goals, identifying the needs and constraints, and creating efficient solutions to effectively solve real industry problems.

### 6. Fundamentals of Object-Oriented Software Design (60 hours)

Object-Oriented Software Design is a computer programming model organized based on the concept of objects or data. Students learn how to apply their knowledge of principles of design, logic and structure to create object-oriented application programs.

### 7. Java, JavaScript and JQuery (80 hours)

This module focuses on Java and JavaScript programming languages to create interactive web pages with dynamic content, control multimedia and animate images. This module also introduces JQuery, an open-source framework library that makes adding JavaScript to web pages easier.

### 8. Python (80 hours)

Students learn how to use Python programming language to develop programs, evaluate, test, navigate, edit and troubleshoot. This module walks students through the best writing, testing and debugging techniques in Python code.



## Course Components

### 9. Introduction to Database (80 hours)

A database refers to the method of organizing data, how a collection of data is stored and accessed electronically from computer systems. By the completion of this module students are able to understand, manipulate, utilize and design databases.

### 10. Structured Query Language (80 hours)

In this course students learn Structured Query Language, also known as SQL, a computer programming language used for communicating and extracting data from databases. Students participate in hands-on labs, where they will gain experience building and running SQL queries.

### 11. Introduction to IoT and Networking (60 hours)

IoT, short for Internet of Things, and Networking systems refer to interconnected smart devices embedded with sensors and software that communicate and exchange data. The purpose of this course is to familiarize students with industry terminology, protocols and best practices in IoT and Networking fundamentals.

### 12. Amazon Web Services (60 hours)

Students gain a working knowledge of Amazon Web Services, a comprehensive, highly reliable, evolving cloud-computing platform designed to provide on-demand cloud computing platforms and application interface services to individuals, companies and governments. By the end of the course, students will have first-hand experience utilizing the pay-as-you-go low-cost service.

### 13. Microsoft Azure (60 hours)

This course covers the fundamentals of Microsoft Azure, another cloud computing service dedicated to managing applications through Microsoft-managed data centers. The purpose of this course is to allow students to gain the skills, training and knowledge needed to expertly develop and manage applications in the cloud computing service.

### 14. Introduction to Web Development (20 hours)

Students gain an understanding of the world wide web, how it is structured and its functionality. This course has a strong emphasis on creating dynamic web pages by combining various programming languages.

### 15. HTML and CSS (800 hours)

This module educates students on two of the core technologies used for web page development. The purpose of this module is to make a distinction between HTML and CSS, when to utilize them and give students hands-on experience designing web pages.



## Course Components

### 16. PHP (60 hours)

Students gain a working knowledge of PHP (Hypertext Preprocessor), an open-source general programming language used for web development that allows users to collect, process and use data. This module prepares students to confidently utilize PHP post-graduation.

### 17. Practicum (160 hours)

Students translate their in-class learning into a real world workplace for a 4-week practicum in the software development field. This allows students to apply the knowledge and skills they've attained throughout their higher education experience.

