# Advanced Java Development

Associate Certificate Part-time <u>School of Computing and Academic Studies</u>

## Overview

**Note:** This program is under review and not accepting applications until further notice. For more information, please contact <u>cstflex@bcit.ca</u>. Please review the <u>Web and Mobile Application Development Associate Certificate [1]</u> for similar learning outcomes, depending on the electives chosen.

Delivery: blended. <u>See details</u>.

This advanced software development program is a subset of the <u>CST FLEX Diploma [2]</u>.

Advanced Java Development (AJD) is a second level credential that is built on top of the <u>Applied Software Development [3]</u> (ASD).

AJD may also be of interest to those with related degrees in Computer Science.

This series of advanced software development courses includes Java Application Development, Object-Oriented Analysis and Design (OOAD), and Advanced Java Web Development.

Students must already have strong software application development experience. Skills in web development with HTML5, CSS3, JavaScript along with <u>COMP 2831 [4]</u> – Business Analysis and Systems Design are required prior to starting this credential.

Electives include open-source advanced JavaScript for Front-End and Back-End Web Development with Angular and Vue.js, Node.js, and React.js; Android Mobile in Java, Amazon Cloud Architecting and Applied DevOps with Kubernetes.

Thousands of students have completed Java courses at BCIT and moved on to successful careers in software development. There are jobs in Vancouver for Java developers who understand the industry-standard use of Java and open source technologies.

AJD graduates will be able to design, build and deploy commercial quality Java and Java Web Applications.

## Entrance Requirements

**Note:** This program is under review and not accepting applications until further notice. For more information, please contact <u>cstflex@bcit.ca</u>. Please review the <u>Web and Mobile Application Development Associate Certificate [5]</u> for similar learning outcomes, depending on the electives chosen.

### Prerequisites

Advanced Java Development is a second-level credential that is built on top of our Applied Software Development, ASD Associate Certificate. This program is aimed at those who are already software developers with previous education and work experience.

Before declaring your intent to complete this program, you must meet the following prerequisites:

- <u>Applied Software Development [6]</u> (ASD) (or detailed proof of equivalent formal education) completed within the last five years.
- Completion of the following courses (or equivalents) within the last five years:
  - <u>COMP 1850 [7]</u> – Introduction to Web Development
  - <u>COMP 2132 [8]</u> – Web Development with JavaScript
  - <u>COMP 2831 [9]</u> – Business Analysis and Systems Design
  - <u>COMP 3601 [10]</u> – Application Development with Java

Please email <u>cstflex@bcit.ca</u> to discuss your prior education before submitting transcripts or course outlines.

Each course has specific prerequisites that must be completed prior to starting this program.

Students who have not completed the prerequisites or who do not have equivalent post-secondary education to ASD will not be approved into the AJD program before completing all missing bridging courses.

**Credit Overlap:**

These three (3) advanced software development programs were designed for students not moving on to the CST Diploma. Program approval will only be granted for one (1) of these programs due to credit overlap.

- <u>Advanced .NET Development [11]</u>
- <u>Advanced Java Development [12]</u>
- <u>Web and Mobile Application Development [13]</u>

Associate Certificates require a minimum of 25% unique credits. It is not possible to earn multiple BCIT credentials using all the same credits in each program.

**Important Notice:** Computing Flexible Learning is a course-by-course registration and was not designed for students on limited timelines.

## Entrance requirements

**Notice to applicants:** As part of our ongoing commitment to ensure students are best prepared for their studies, Flexible Learning programs will be adopting English Language Proficiency standards (Categories 1, 2, and 3) as part of their declaration requirements effective April 2025.

Declarations submitted for program intakes beginning **April 1, 2025** or later will be evaluated using the English Language Proficiency (ELP) requirement below.

- **English language proficiency:** Category 2 [14] – English Studies 12 (67%) or equivalent

## International applicants

This program is not available to international students. View available programs [15]

## Program declaration

Declaring your Flexible Learning (Part-time Studies) program ensures that BCIT is aware of your intent to complete a program as it is currently outlined and provides you the opportunity to apply for transfer credit.

To submit your declaration:

- Answer all questions completely.
- If required, convert transcripts and documents to PDF files [16] .
- Have a credit card ready to pay the application fee.

Upon approval, a program plan letter will be sent to you confirming your program of study. Please allow approximately eight weeks for processing.

Learn more about program declaration [18]

**Note:** Please review the program prerequisites carefully before submitting your program declaration. Applicants who do not meet the prerequisites will not be approved to enter this program.

## Scheduled Intakes

Ongoing Flexible Learning (Part-time Studies) intakes: January, April, and September. [19]

# Costs & Supplies

The Advanced Java Development Associate Certificate (AJD) program is built on top of Applied Software Development (ASD) or equivalent education.

Total cost to complete both the ASD and AJD associate certificates is approximately $9,000.

The prerequisite ASD program tuition and books is approximately $4,000.

The cost of AJD alone is approximately $5,000 tuition and books.

## Tuition fees

Flexible Learning (Part-time Studies) tuition is charged on a course-by-course basis. Please see the Flexible Learning Tuition & Fees [20] page for more information.

# Courses

## Program matrix

Check current availability of courses [21] for this program.

| 1. Required Courses: (11.0 credits) | | Credits |
|---|---|---|
| COMP 3601 [22] | **Application Development with Java*** | 4.0 |
| COMP 3833 [24] | **Object Oriented Analysis and Design** | 3.0 |
| COMP 4601 [26] | **Advanced Java Web Application Development** | 4.0 |
| *Credit will be granted for only one of COMP 3601 or both of COMP 2613 and COMP 3656. Check Computing Flexible Learning Course and Program Changes [28] for details. | | |
| | | |
| **2. Complete a minimum of 6.0 credits of the following electives:** | | **Credits** |

| COMP 1288 [29] | IT Project Management Fundamentals | 1.5 |
|---|---|---|
| COMP 2833 [31] | **Agile Scrum Methods** | 4.0 |
| COMP 2909 [33] | **Front-End Web Development with Angular and Vue.js** | 1.5 |
| COMP 3012 [35] | **Back-End Web Development with Node.js*** | 3.0 |
| COMP 3013 [37] | **Front-End Web Development with React.js*** | 3.0 |
| COMP 3215 [39] | **AWS Academy Cloud Architecting** | 3.0 |
| COMP 3617 [41] | **Android and Mobile Applications in Java** | 3.0 |
| COMP 4016 [43] | **Applied DevOps with Kubernetes** | 3.0 |

*Credit will be granted for only one of:

- COMP 3012 or COMP 2912
- COMP 3013 or COMP 2913

Check Computing Flexible Learning Course and Program Changes [45] for details.

| **Total Credits:** | **17.0** |
|---|---|

Check current availability of courses [46] for this program.

## Transfer credit

Do you have credits from another BC/Yukon post-secondary school? Do you want to know if they transfer to courses here at BCIT? Check out BCIT's Transfer Equivalency Database [47] to find out.

# Program Details

**Computer hardware and Internet requirements**

Students must provide a current model PC desktop or laptop with a webcam, microphone and have high-speed internet access. COMP courses may use two-way audio and video as well as group work outside of class.

Participants must be computer literate in order to participate and complete each COMP course. Please contact the department if you have any questions.

Advanced Java Development (AJD) is built on top of ASD**,** along with COMP 1850 and COMP 2132.

Due to prerequisites and scheduling, it is typically not possible to complete this part-time program in less than 5 terms, at night and on weekends.

**Note:** Flexible Learning was not designed for full-time delivery or for those on funding timelines

You cannot declare Advanced Java Development unless you have completed ASD or can detail equivalent formal post-secondary education with course by course detail.

It will take 4 or more terms (15+ months) to complete this credential, depending on when you start.

- COMP 3601  is offered every term.
- COMP 3833 is offered in September and April.
- COMP 4601 is offered in September or January.
- Some electives may only be offered once per year.

**Note:** Flexible Learning was not designed for full-time delivery or for those on funding timelines

All of these courses must be completed within a five-year period.

The curriculum may be modified in accordance with market trends in the industry.

**Prerequisites:**

Applied Software Development [48] (ASD) or equivalent post-secondary education which must be evaluated on a course by course basis.

COMP 1850 – [49] Introduction to Web Development or equivalent HTML5/CSS3 knowledge, plus COMP 2132 [50] – Web Development with JavaScript.

The program core includes Java Application Development, Object-Oriented Software Design, and Advanced Java Web Applications.

Elective courses include: Android and Mobile Applications in Java, IT Project Management, Angular and Vue, Node.js, React, AWS Academy Cloud Architecting and Applied DevOps with Kubernetes.

**Credit Overlap:**

These three (3) advanced software development programs were designed for students not moving on to the CST Diploma. Program approval will only be granted for one (1) of these programs due to credit overlap.

- Advanced .NET Development [51]
- Advanced Java Development [52]
- Web and Mobile Application Development [53]

Associate Certificates require a minimum of 25% unique credits. It is not possible to earn multiple BCIT credentials using all the same credits in each program.

**Program abandonment:**

Students approved for a part-time study program are expected to register and complete courses on a continuous basis. A student that has not completed a course from their approved program of study over a period of three consecutive academic terms will be considered to have abandoned the program.

Throughout the duration of the program, a student is permitted a maximum of five academic terms where they are not required to register and complete a course from their approved program of study. Students who exceed the five-term maximum will be considered to have abandoned the program.

Students who have abandoned their approved program of study and wish to be reinstated will be required to apply for program approval for a current credential. BCIT cannot guarantee that courses taken prior to this reapplication will be credited toward the current credential.

BCIT Policy 5103 – Student Evaluation [PDF] [54] permits a maximum of three attempts to successfully complete each course within a credential.

## Program delivery

Blended: This program has courses that are delivered on campus or partly on campus and partly online.

Some COMP courses are delivered entirely online and others are entirely on campus. A few course sections in AJD have a blended delivery with synchronous on campus classes, and other sections have synchronous online classes, while both delivery options may include blended, required asynchronous online components.

## Program location

Courses may be offered at the following locations:

Burnaby Campus [55]
3700 Willingdon Avenue
Burnaby, BC

Downtown Campus [56]
555 Seymour Street
Vancouver, BC

Online Learning [57]

## Program abandonment

- Students approved for a Flexible Learning (Part-time Studies) program are expected to register and complete courses on a continuous basis.

- A student that has not completed a course from their approved program of study over a period of three consecutive academic terms will be considered to have abandoned the program.

- Throughout the duration of the program, a student is permitted a maximum of five academic terms where they are not required to register and complete a course from their approved program of study. Students who exceed the five term maximum will be considered to have abandoned the program.

- Students who have abandoned their approved program of study and wish to be reinstated will be required to apply for program approval for a current credential. BCIT cannot guarantee that courses taken prior to this reapplication will be credited towards the current credential.

BCIT Policy 5103 - Student Evaluation [PDF] [58] permits a maximum of three attempts to successfully complete each course within a credential.

# Graduating & Jobs

## Apply for graduation

Upon successful completion of all program requirements, complete an Application for BCIT Credential [PDF] [59] and submit it to Student Information and Enrolment Services.

Allow approximately six to eight weeks for processing.

All financial obligations to the Institute must be met prior to issuance of any credential.

# Faculty, Advisors & Staff

AJD was developed by Kevin Cudihee, Program Head BCIT Computing Flexible Learning with input from subject matter experts Anca Datcu-Romano, and Arash Ghavami.

Administrative support is provided by:

- Joanne Atha, Operations Coordinator Computing Flexible Learning.
- Gustavo Montemor, Program Assistant.

## Advisory committee

Java related 'COMP' courses are delivered by subject matter experts and industry professionals, most of whom are actual Java developers working in the local market.

# Students on Limited Timelines

## Important Notice:

This program may not be eligible for those on financial aid or international students.

Students on limited timelines have no guarantees that courses will be available in any given term.

Several of the required courses are only offered once per year and must be completed in a specific sequence.

## Computing Flexible Learning

Most Computing Flexible Learning credentials cannot be fast-tracked due to prerequisites and scheduling.

Please understand that there is also no guarantee that the minimum required course credits can be sustained from term to term in Flexible Learning, Part-time Studies (PTS).

Most PTS courses fill quickly so space is not guaranteed and courses may be cancelled before term start if there is insufficient interest.

As a result, students on timelines may not be able to obtain the minimum credits they need or want in each term to complete this program.

## ASD and Web Development prerequisites

Students who have completed ASD may complete the Advanced Java program in 4 or 5 PTS terms.

Those who have not completed ASD need departmental approval with proof of equivalent ASD formal education.

# Contact Us

Email: cstflex@bcit.ca

Programs and courses are subject to change without notice.

## List of links found on this page

This list includes all links found on this page for your reference.

[1] https://www.bcit.ca/programs/web-and-mobile-application-development-associate-certificate-part-time-6465acert/
[2] https://www.bcit.ca/programs/computer-systems-diploma-part-time-5500pdiplt/
[3] https://www.bcit.ca/programs/applied-software-development-asd-associate-certificate-part-time-6958acert/
[4] https://www.bcit.ca/study/courses/comp2831
[5] https://www.bcit.ca/programs/web-and-mobile-application-development-associate-certificate-part-time-6465acert/
[6] https://www.bcit.ca/programs/applied-software-development-asd-associate-certificate-part-time-6958acert/
[7] https://www.bcit.ca/study/courses/comp1850
[8] https://www.bcit.ca/study/courses/comp2132
[9] https://www.bcit.ca/study/courses/comp2831
[10] https://www.bcit.ca/study/courses/comp3601
[11] https://www.bcit.ca/programs/advanced-net-development-associate-certificate-part-time-6810acert/
[12] https://www.bcit.ca/programs/advanced-java-development-associate-certificate-part-time-6445acert/
[13] https://www.bcit.ca/programs/web-and-mobile-application-development-associate-certificate-part-time-6465acert/
[14] https://www.bcit.ca/admission/entrance-requirements/english-language-proficiency/#category2
[15] https://www.bcit.ca/international-applicants/

[16] https://www.bcit.ca/admission/how-to-apply/submitting-transcripts-supporting-documents/#documents

[17] https://apply.educationplannerbc.ca/bcit

[18] https://www.bcit.ca/admission/how-to-apply/program-declaration/

[19] https://www.bcit.ca/flexible-learning/part-time-courses-programs/flexible-learning-key-registration-dates/

[20] https://www.bcit.ca/admission/tuition-fees/flexible-learning/

[21]
https://www.bcit.ca/courses/comp1288,comp2833,comp2909,comp3012,comp3013,comp3215,comp3601,comp3617,comp3833,comp4016,comp4601/

[22] https://www.bcit.ca/courses/application-development-with-java-comp-3601/

[23] https://www.bcit.ca/outlines/comp3601/

[24] https://www.bcit.ca/courses/object-oriented-analysis-and-design-comp-3833/

[25] https://www.bcit.ca/outlines/comp3833/

[26] https://www.bcit.ca/courses/advanced-java-web-application-development-comp-4601/

[27] https://www.bcit.ca/outlines/comp4601/

[28] https://www.bcit.ca/computing-academic-studies/computing/part-time-studies/course-program-changes/

[29] https://www.bcit.ca/courses/it-project-management-fundamentals-comp-1288/

[30] https://www.bcit.ca/outlines/comp1288/

[31] https://www.bcit.ca/courses/agile-scrum-methods-comp-2833/

[32] https://www.bcit.ca/outlines/comp2833/

[33] https://www.bcit.ca/courses/front-end-web-development-with-angular-and-vue-js-comp-2909/

[34] https://www.bcit.ca/outlines/comp2909/

[35] https://www.bcit.ca/courses/back-end-web-development-with-node-js-comp-3012/

[36] https://www.bcit.ca/outlines/comp3012/

[37] https://www.bcit.ca/courses/front-end-web-development-with-react-js-comp-3013/

[38] https://www.bcit.ca/outlines/comp3013/

[39] https://www.bcit.ca/courses/aws-academy-cloud-architecting-comp-3215/

[40] https://www.bcit.ca/outlines/comp3215/

[41] https://www.bcit.ca/courses/android-and-mobile-applications-in-java-comp-3617/

[42] https://www.bcit.ca/outlines/comp3617/

[43] https://www.bcit.ca/courses/applied-devops-with-kubernetes-comp-4016/

[44] https://www.bcit.ca/outlines/comp4016/

[45] https://www.bcit.ca/computing-academic-studies/computing%20/part-time-studies/course-program-changes/

[46]
https://www.bcit.ca/courses/comp1288,comp2833,comp2909,comp3012,comp3013,comp3215,comp3601,comp3617,comp3833,comp4016,comp4601/

[47] https://www.bcit.ca/admission/entrance-requirements/transfer-credit/

[48] https://www.bcit.ca/programs/applied-software-development-asd-associate-certificate-part-time-6958acert/

[49] https://www.bcit.ca/study/courses/comp1850

[50] https://www.bcit.ca/study/courses/comp2132

[51] https://www.bcit.ca/programs/advanced-net-development-associate-certificate-part-time-6810acert/

[52] https://www.bcit.ca/programs/advanced-java-development-associate-certificate-part-time-6445acert/

[53] https://www.bcit.ca/programs/web-and-mobile-application-development-associate-certificate-part-time-6465acert/

[54] https://www.bcit.ca/files/pdf/policies/5103.pdf

[55] https://www.bcit.ca/about/visit/campuses-directions/burnaby/

[56] https://www.bcit.ca/about/visit/campuses-directions/downtown/

[57] https://www.bcit.ca/flexible-learning/distance-online-learning/

[58] https://www.bcit.ca/files/pdf/policies/5103.pdf

[59] https://www.bcit.ca/files/records/pdf/appl_4_credential.pdf

[60] https://www.bcit.ca/international-students/

[61] https://www.bcit.ca/financial-aid/

[62] https://secure.bcit.ca/sis/apply/