

Applied Database Administration and Design

Associate Certificate Part-time [School of Computing and Academic Studies](#)

Overview

The Applied Database Administration and Design (ADAD) program covers data modelling, SQL programming, database design, business analysis, and data quality. Learn to manage policies, access control, governance, security, and data recovery. Electives include Data Visualization, SQL Server Development and Azure-based Business Intelligence tools.

Delivery: blended. [See details.](#)

About the program

- Learn data modelling and SQL programming
- Design scalable databases to industry standards
- Develop integrated and secure database information systems
- Discover best practices for data quality improvement and server administration
- Use scripting tools to simplify database administration tasks
- 24 credits (split between [required and elective courses](#) [1].)
- Choose from eight elective course options to suit individual interests
- Enroll throughout the year to study course by course, nights and weekends, online or in person ([Downtown](#) [2] or [Burnaby campus](#) [3].)

See the [Program Details](#) [4] to learn more about what you can expect from ADAD.

Who should complete the ADAD Associate Certificate?

This program might be for you if you:

- Are interested in learning Database Administration skills
- Have other post-secondary education and want to focus on building databases and database server administration

Please check the [Entrance Requirements](#) [5] to ensure that ADAD is right for you.

What can Applied Database Administration and Design graduates do?

- Design and build data information systems
- Create and manage database applications
- Use hand coding in SQL and common industry tools
- Work as a Database Administrators (DBA), setting policies for users
- Focus on database server administration and reporting
- Be responsible for ensuring that data systems are protected from loss or compromise
- Move on to higher levels of data systems development or ladder into the [Applied Data Analytics Certificate \(ADAC\)](#) [6]

ADAD provides students with career-ready DBA skills.

Entrance Requirements

- COMP 1002 or equivalent knowledge
- BC High School Grade 12 English and Grade 12 Math, or equivalent knowledge.

Students in this program are required to have English reading, writing and speaking skills.

Specific prerequisites or equivalent knowledge are required for each course.

NOTE:

This program is aimed at mature students with other post-secondary education, and work experience looking to validate their knowledge, or those with connections to potential employers.

It is not designed for those students just out of high school with no other education or work experience, those students should consider completing a Diploma or Degree in order to be well-positioned in the job market.

Students limited timelines:

COMP FLEX courses have specific prerequisites, and these must be completed in the correct order.

Many required higher-level and elective courses may not be offered each term and some courses are only offered once per year.

[Please contact the department](#) for course planning.

IMPORTANT NOTICE:

Students who require a minimum course load to retain eligibility for financial aid or international student status have no guarantees that Flexible Learning courses will be available in any given term. There is also no guarantee that the minimum required course credits can be sustained from term to term in Flexible Learning.

Most COMP and MATH courses fill quickly so space is not guaranteed and courses may be cancelled before term start if there is insufficient interest. This may impact both the number of courses a student is able to take in any term, and the time it takes to complete a Flexible Learning credential.

As a result, students may not be able to obtain the minimum credits they need or want in each term to continue in the program. Computing Flexible Learning were not designed for those attempting to complete a certificate program in a full-time delivery model of less than 2 years.

Students on limited timelines should instead apply to full-time programs at BCIT.

Important Notice: Computing Flexible Learning is a course-by-course registration and was not designed for students on limited timelines. International students and those on funding timelines should instead apply to Full-time programs. Please read the details on the program entry page.

International applicants

This program is not available to international students. [View available programs \[7\]](#)

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 \[8\]](#).
- 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 \[10\]](#)

Note: Please complete [COMP 1630 \[11\]](#) before declaring your intent to complete this program.

Costs & Supplies

All Computing Flexible Learning programs are course-by-course registration.

Please Note: Due to prerequisites and scheduling it is typically not possible to complete this program in less than 5 terms or 18 months.

Students on shorter timelines for funding or international students with study permits less than 2 years should consider other programs.

There are typically only 7 courses required to complete **ADAD**, several of which also provide the database foundations for the Applied Data Analytics Certificate (**ADAC**).

Canadian and PR students should budget \$6,000 for tuition and books, International students pay high tuition.

Specific textbooks are required at an additional cost, some courses also have lower cost eBook options.

The average cost for each COMP PTS is around \$500-\$600 per course plus books.

Some Part-time Studies students may complete the **ADAD** over 4 terms or 1.5 years with 2 courses per term.

This would equate to an average workload of 25+ hours per week between class time, reading and homework.

Attendance and participation are mandatory, students who skip classes or who do not participate may be dropped from a COMP course.

NOTE: Please register early to avoid disappointment, our database courses are very popular and fill weeks or months in advance.

Students must have a personal computer with high-speed internet access capable of running MS Windows 11.

Courses

Program matrix

Check [current availability of courses \[12\]](#) for this program.

| 1. Required Courses (16.5 credits): | Credits |
|--|---------|
| COMP 1630 [13] Relational Database Design and SQL | 5.0 |
| COMP 2831 [15] Business Analysis and Systems Design | 4.0 |
| COMP 3677 [17] Introduction to MS Server Administration Part 1 | 1.5 |
| COMP 3680 [19] Microsoft SQL Server Administration Part 2 | 1.5 |
| COMP 3771 [21] MS PowerShell Scripting | 3.0 |
| COMP 3839 [23] Data Quality Improvement | 1.5 |
| | |
| 2. Complete any 7.5 credits from the following list of electives: | Credits |
| COMP 1288 [25] IT Project Management Fundamentals | 1.5 |
| COMP 2156 [27] Introduction to Microsoft Power BI | 1.5 |
| COMP 2252 [29] SAP Crystal Reports | 3.0 |
| COMP 2256 [31] Introduction to Visual Analytics with Tableau | 3.0 |
| COMP 2364 [33] Microsoft Excel | 3.0 |
| COMP 3156 [35] MS Power BI Optimization | 1.5 |

| | | |
|---|--|-------------|
| COMP 3678 [37] | SQL Server Development | 4.0 |
| COMP 3679 [39] | MS Azure and SQL Analytics Tools | 4.0 |
| COMP 3681 [41] | Microsoft Windows Server Administration Part 2 | 1.5 |
| Note: Credit will only be granted for one of: <ul style="list-style-type: none"> COMP 3678 or COMP 4678 COMP 3679 or COMP 4679 COMP 4677 or COMP 3677 and COMP 3680 | | |
| Total Credits: | | 24.0 |

Check [current availability of courses \[43\]](#) 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 \[44\]](#) 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.

ADAD may be completed with as few as 7 courses, however delivery was designed for 1-2 courses per term. Due to prerequisites and scheduling it is typically not possible to complete this part-time program in less than 3 terms, at night and on weekends.

Note: Flexible Learning via Part-time Studies was not designed for full-time delivery or for those on funding timelines.

The foundations of this program include group work, plus how to communicate technical system specifications in writing and make oral presentations in a team environment.

ADAD starts with Relational Database Design with SQL, Business Analysis and Systems Design, Data Quality Improvement, MS PowerShell and MS SQL Server Admin. Students have a variety of elective choices in relational databases and reporting technologies. These include: Project Management, SAP Crystal Reports, Power BI, Visual Analytics with Tableau, PowerShell Scripting, plus Microsoft SQL Server related options.

Industry certifications*

Several of these elective 'COMP' courses help students prepare to challenge current industry/vendor credentials.

**Industry exams are independent from BCIT credentials. These exams may be purchased for additional costs, from various third parties.*

Students will also require additional preparation and studying in order to pass these industry certification exams.

Grading

The students will be given a grade for each course based on the listed competencies. In most cases each course carries a mark for individual work; several courses require team work, as well as an individual test. Assignments and exams will be used in the evaluation of students.

Program delivery

Blended: This program is delivered partly on campus and partly online.

Please check the individual course schedule pages. Some COMP courses are delivered entirely online and others are entirely on campus. Several course sections in ADAD have a blended delivery with synchronous on campus classes, and others have synchronous online classes, while both options may include required asynchronous online components.

Program location

Courses may be offered at the following locations:

[Burnaby Campus \[45\]](#)

3700 Willingdon Avenue
Burnaby, BC

[Downtown Campus \[46\]](#)

555 Seymour Street
Vancouver, BC

[Online Learning \[47\]](#)

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 \[PDF\]](#), [48], permits a maximum of three attempts to successfully complete each course within a credential.

Graduating & Jobs

ADAD students surveyed have reported very high satisfaction with the program.

Please check the graduation reports and BC Student Outcomes for details.

Students who completed ADAD have partial course credit in [ADAC](#), [49].

Graduate outcome survey highlight

100% of grads found the program [useful for getting their job](#) [50], [PDF]

Graduate employment outcomes

The BCIT student outcomes report presents summary findings from the annual survey of former students administered by BC Stats one to two years after graduation. These reports combine the last three years of available results for the 2021-2023 BCIT Outcomes Surveys of 2020-2022 graduates and for Degree 2019-2021 graduates. The reports are organized into three-page summaries containing information on graduates' labour market experiences and opinions regarding their education. More detailed information can be accessed at the [BC Student Outcomes](#) [51], website.

To view these results, you may need to have the [Adobe Acrobat Reader](#) [52], installed in your Web browser.

- [Applied Database Administration and Design](#) [53]

Apply for graduation

Upon successful completion of all program requirements, complete an [Application for BCIT Credential \[PDF\]](#), [54], 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

ADAD was created by Kevin Cudihee, Program Head of BCIT Computing Flexible Learning and Industry Services.

BCIT Computing Flexible Learning database courses are delivered by subject matter experts who work in the field as database design, administration and business intelligence professionals.

Advisory committee

ADAD courses were developed by Kevin Cudihee in conjunction with subject matter experts: Frank Wegener, Alexander Volkov, Ashok Pamu, Ed Rubuliak, Glen Elliott, Gordon Hamilton, Cathy Michitsch, Donabel Santos, Ahmad Chamy, Andre Coetzee, Joanne Atha, Rouzbeh Keshavarz, Wouter De Raeye, Saber Talazadeh, Alaa Alakari, and Edison Sie.

This credential was approved by the Computer Systems Technology, CST Curriculum Committee, and School of Computing and Academic Studies Quality Committee, SQC.

Contact Us

Please email BCIT Computing Flexible Learning:

Email: cstflex@bcit.ca

General Inquiries: 604-432-8465

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/applied-database-administration-and-design-associate-certificate-part-time-6994acert/#courses>
- [2] <https://www.youtube.com/watch?v=mqCFtC9H2lU>
- [3] https://www.youtube.com/watch?v=CKl8mhU_eR0
- [4] <https://www.bcit.ca/programs/applied-database-administration-and-design-associate-certificate-part-time-6994acert/#details>
- [5] <https://www.bcit.ca/programs/applied-database-administration-and-design-associate-certificate-part-time-6994acert/#entry>
- [6] <https://www.bcit.ca/programs/applied-data-analytics-certificate-part-time-5512cert/>
- [7] <https://www.bcit.ca/international-applicants/>
- [8] <https://www.bcit.ca/admission/how-to-apply/submitting-transcripts-supporting-documents/#documents>
- [9] <https://apply.educationplannerbc.ca/bcit>
- [10] <https://www.bcit.ca/admission/how-to-apply/program-declaration/>
- [11] <https://www.bcit.ca/courses/relational-database-design-and-sql-comp-1630/>
- [12] <https://www.bcit.ca/courses/comp1288,comp1630,comp2156,comp2252,comp2256,comp2364,comp2831,comp3156,comp3677,comp3678,comp3679,comp3680,comp3681,con>

- [13] <https://www.bcit.ca/courses/relational-database-design-and-sql-comp-1630/>
- [14] <https://www.bcit.ca/outlines/comp1630/>
- [15] <https://www.bcit.ca/courses/business-analysis-and-systems-design-comp-2831/>
- [16] <https://www.bcit.ca/outlines/comp2831/>
- [17] <https://www.bcit.ca/courses/introduction-to-ms-server-administration-part-1-comp-3677/>
- [18] <https://www.bcit.ca/outlines/comp3677/>
- [19] <https://www.bcit.ca/courses/microsoft-sql-server-administration-part-2-comp-3680/>
- [20] <https://www.bcit.ca/outlines/comp3680/>
- [21] <https://www.bcit.ca/courses/ms-powershell-scripting-comp-3771/>
- [22] <https://www.bcit.ca/outlines/comp3771/>
- [23] <https://www.bcit.ca/courses/data-quality-improvement-comp-3839/>
- [24] <https://www.bcit.ca/outlines/comp3839/>
- [25] <https://www.bcit.ca/courses/it-project-management-fundamentals-comp-1288/>
- [26] <https://www.bcit.ca/outlines/comp1288/>
- [27] <https://www.bcit.ca/courses/introduction-to-microsoft-power-bi-comp-2156/>
- [28] <https://www.bcit.ca/outlines/comp2156/>
- [29] <https://www.bcit.ca/courses/sap-crystal-reports-comp-2252/>
- [30] <https://www.bcit.ca/outlines/comp2252/>
- [31] <https://www.bcit.ca/courses/introduction-to-visual-analytics-with-tableau-comp-2256/>
- [32] <https://www.bcit.ca/outlines/comp2256/>
- [33] <https://www.bcit.ca/courses/microsoft-excel-comp-2364/>
- [34] <https://www.bcit.ca/outlines/comp2364/>
- [35] <https://www.bcit.ca/courses/ms-power-bi-optimization-comp-3156/>
- [36] <https://www.bcit.ca/outlines/comp3156/>
- [37] <https://www.bcit.ca/courses/sql-server-development-comp-3678/>
- [38] <https://www.bcit.ca/outlines/comp3678/>
- [39] <https://www.bcit.ca/courses/ms-azure-and-sql-analytics-tools-comp-3679/>
- [40] <https://www.bcit.ca/outlines/comp3679/>
- [41] <https://www.bcit.ca/courses/microsoft-windows-server-administration-part-2-comp-3681/>
- [42] <https://www.bcit.ca/outlines/comp3681/>
- [43] <https://www.bcit.ca/courses/comp1288,comp1630,comp2156,comp2252,comp2256,comp2364,comp2831,comp3156,comp3677,comp3678,comp3679,comp3680,comp3681,con>
- [44] <https://www.bcit.ca/admission/entrance-requirements/transfer-credit/>
- [45] <https://www.bcit.ca/about/visit/campuses-directions/burnaby/>
- [46] <https://www.bcit.ca/about/visit/campuses-directions/downtown/>
- [47] <https://www.bcit.ca/flexible-learning/distance-online-learning/>
- [48] <https://www.bcit.ca/files/pdf/policies/5103.pdf>
- [49] <https://www.bcit.ca/programs/applied-data-analytics-certificate-part-time-5512cert/#overview>
- [50] <https://www.bcit.ca/files/ir/gp/6994acert.pdf>
- [51] https://bcstats.shinyapps.io/so_data_viewer/
- [52] <https://get.adobe.com/reader/>
- [53] <https://www.bcit.ca/files/ir/gp/6994acert.pdf>
- [54] https://www.bcit.ca/files/records/pdf/appl_4_credential.pdf
- [55] <https://www.bcit.ca/international-students/>
- [56] <https://www.bcit.ca/financial-aid/>
- [57] <https://secure.bcit.ca/sis/apply/>