# University Certificate in Computing and Information Systems

## One Year (33 credits)

**2024/2025** [Program Requirements](https://www.athabascau.ca/calendar/2024/undergraduate/program-regulations/university-certificates/university-certificate-in-computing-and-information-systems.html) - Effective September 1, 2024

This program plan will assist you in planning your program. You must follow the official program requirements for the calendar year in which you are enrolled.  
  
Please contact [FST Student Success Centre](http://scis.athabascau.ca/contact-us/index.php) for program planning assistance.

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| **Course Level Legend** JUNIOR / JR - 200 numbered course SENIOR / SR - 300 or 400 numbered course PREPARATORY - 100 numbered course | **Course Progress Legend** TR - Transfer Credit Awarded C - Completed AU Course IP - In Progress AU Course |

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| **LEVEL** | **TOTAL CREDITS** | **COURSE** | **REQUIREMENT** | **COURSE  PROGRESS** | **COMMENTS** |
| Junior | 3 | [COMP200](http://www.athabascau.ca/html/syllabi/comp/comp200.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 6 | [COMP206](https://www.athabascau.ca/syllabi/comp/comp206.html) or [COMP218](https://www.athabascau.ca/syllabi/comp/comp218.html) or [COMP268](https://www.athabascau.ca/syllabi/comp/comp268.html) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) - See Programming Courses Note below. |
| Junior | 9 | [COMP266](http://www.athabascau.ca/html/syllabi/comp/comp266.htm) or [COMP272](http://www.athabascau.ca/html/syllabi/comp/comp272.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 12 | [ENGL255](http://www.athabascau.ca/html/syllabi/engl/engl255.htm) or [ADMN233](http://www.athabascau.ca/html/syllabi/admn/admn233.htm) | Required |  | [Humanities](https://www.athabascau.ca/course/index.html?/undergraduate/humanities/all/)/[Applied Studies](https://www.athabascau.ca/course/index.html?/undergraduate/applied-studies/all/) |
| Junior | 15 | [MATH2](https://www.athabascau.ca/syllabi/math/math270.php)70 | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 18 | [COMP314](http://www.athabascau.ca/html/syllabi/comp/comp314.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 21 | [COMP347](http://www.athabascau.ca/html/syllabi/comp/comp347.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 24 | [COMP361](http://www.athabascau.ca/html/syllabi/comp/comp361.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 27 | [COMP378](http://www.athabascau.ca/html/syllabi/comp/comp378.htm) | Required |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 30 | [COMP3XX](http://www.athabascau.ca/course/ug_subject/cd.php#comp) or [CMIS3XX](http://www.athabascau.ca/course/ug_subject/cd.php#cmis) | Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/)/[Applied Studies](https://www.athabascau.ca/course/index.html?/undergraduate/applied-studies/all/) |
| Senior | 33 | [COMP3XX](http://www.athabascau.ca/course/ug_subject/cd.php#comp) or [CMIS3XX](http://www.athabascau.ca/course/ug_subject/cd.php#cmis) | Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/)/[Applied Studies](https://www.athabascau.ca/course/index.html?/undergraduate/applied-studies/all/) |

**Overall Program Requirements**

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| **Minimums** |
| 18 credits – Residency requirement (courses through AU) |
| \*Note – MATH 270 may be replaced with a 200 level 3-credit course in Science upon approval of the Program Director. Reach out to your Academic Program Advisor for further details. |

**Programming Courses Note:**

**COMP 268** - Introduction to Computer Programming (Java):

Java is a reliable and multi-platform programming language, widely used in computing and information systems including web, mobile, and cloud applications and enterprise-level development. It has been a core programming language in many universities. You may choose this course if you don’t have a preference for other programming languages.

**COMP 206** - Introduction to Computer Programming (C++):

C++ is often a desired language in computer systems and game programming, or anything that is considered "computationally intensive". It can provide low-level control and high-performance code for software-hardware interfaces, operating systems, computer graphics, and high-performance computing. Students who are interested in game programming, computer graphics, embedded systems, and computer system level programming may choose this course.

**COMP 218** - Introduction to Computer Programming with Python:

Python is relatively easy to learn and use. It has extensive library support and is commonly adopted in many computing and its application areas including machine learning. Python is recommended for students who would take AI and machine learning, data analysis, and other related computing courses and minors.