# Bachelor of Science, Applied Mathematics and Computing and Information Double Major

## Four Year (120 credits)

**2025/2026** BSc Applied Mathematics Major [Program Regulations](https://www.athabascau.ca/calendar/2025/undergraduate/program-regulations/degrees/bachelor-of-science-applied-mathematics-major.html) & BSc Computing and Information Systems Major [Program Regulations](https://www.athabascau.ca/calendar/undergraduate/program-regulations/degrees/bachelor-of-science-computing-and-information-systems-major.html) - Effective September 1, 2025

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 courseSENIOR / SR - 300 or 400 numbered coursePREPARATORY - 100 numbered course | **Course Progress Legend**TR - Transfer Credit AwardedC - Completed AU CourseIP - In Progress AU Course |

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| **LEVEL** | **TOTALCREDITS** | **COURSE** | **REQUIREMENT** | **COURSE PROGRESS** | **COMMENTS** |
| Junior | 3 | [ENGL 255](http://www.athabascau.ca/syllabi/engl/engl255.php)  | Required CoreEnglish Writing Requirement |  | [Humanities](https://www.athabascau.ca/course/index.html?/undergraduate/humanities/all/) – ENGL 255 is strongly recommended; students can choose a different junior or senior ENGL course as long as a minimum grade of B- is achieved |
| Junior | 6 | [MATH 215](http://www.athabascau.ca/html/syllabi/math/math215.htm) or [MATH 216](http://www.athabascau.ca/html/syllabi/math/math216.htm) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 9 | [MATH 265](http://www.athabascau.ca/html/syllabi/math/math265.htm) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 12 | [COMP 200](http://www.athabascau.ca/syllabi/comp/comp200.php) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/)  |
| Junior | 15 | [MATH 270](https://www.athabascau.ca/syllabi/math/math270.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 18 | [MATH 266](https://www.athabascau.ca/syllabi/math/math266.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 21 | [MATH 271](https://www.athabascau.ca/syllabi/math/math271.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 24 | [MATH](https://www.athabascau.ca/course/index.html?/undergraduate/science/mathematics/) | APMT Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 27 | [COMP 206](https://www.athabascau.ca/syllabi/comp/comp206.html) or [COMP 218](https://www.athabascau.ca/syllabi/comp/comp218.html) or [COMP 268](https://www.athabascau.ca/syllabi/comp/comp268.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – See Programming Courses Note below |
| Jr/Sr | 30 | [COMP 272](https://www.athabascau.ca/syllabi/comp/comp272.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 33 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Jr/Sr | 36 |  | Option |  | [Social Science](https://www.athabascau.ca/course/index.html?/undergraduate/social-science/all/) |
| Jr/Sr | 39 |  | Option |  | [Social Science](https://www.athabascau.ca/course/index.html?/undergraduate/social-science/all/) |
| Senior | 42 | [SCIE 326](http://www.athabascau.ca/html/syllabi/scie/scie326.htm) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 45 | [PHIL 333](http://www.athabascau.ca/html/syllabi/phil/phil333.htm) or [PHIL 371](http://www.athabascau.ca/html/syllabi/phil/phil371.htm) | Required Core |  | [Humanities](https://www.athabascau.ca/course/index.html?/undergraduate/humanities/all/) |
| Senior | 48 | [MATH 309](https://www.athabascau.ca/syllabi/math/math309.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 51 | [MATH 315](https://www.athabascau.ca/syllabi/math/math315.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 54 | [MATH 365](https://www.athabascau.ca/syllabi/math/math365.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 57 | [MATH 366](https://www.athabascau.ca/syllabi/math/math366.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 60 | [MATH 370](https://www.athabascau.ca/syllabi/math/math370.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 63 | [MATH 376](https://www.athabascau.ca/syllabi/math/math376.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 66 | [MATH](https://www.athabascau.ca/course/index.html?/undergraduate/science/mathematics/) | APMT Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 69 | [MATH](https://www.athabascau.ca/course/index.html?/undergraduate/science/mathematics/) | APMT Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 72 | [COMP 314](https://www.athabascau.ca/syllabi/comp/comp314.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 75 | [COMP 347](https://www.athabascau.ca/syllabi/comp/comp347.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 78 | [COMP 361](https://www.athabascau.ca/syllabi/comp/comp361.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 81 | [COMP 378](https://www.athabascau.ca/syllabi/comp/comp378.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 84 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/)  |
| Senior | 87 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 90 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 93 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 96 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 99 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 102 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | CIS Major Elective\* |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 105 | [COMP 494](http://www.athabascau.ca/syllabi/comp/comp494.php) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 108 | [MATH 476](https://www.athabascau.ca/syllabi/math/math476.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 111 | [MATH 480](https://www.athabascau.ca/syllabi/math/math480.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 114 | [MATH 495](https://www.athabascau.ca/syllabi/math/math495.html) | APMT Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – Recommended as your final course or part of your last group of courses. |
| Senior | 117 | [COMP 482](https://www.athabascau.ca/syllabi/comp/comp482.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 120 | [COMP 495](https://www.athabascau.ca/syllabi/comp/comp495.html) | CIS Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – Recommended as your final course or part of your last group of courses. |

\*Looking for suggestions on what COMP courses to take? [Explore our suggested COMP course list for specializations.](https://www.athabascau.ca/science-and-technology/resources/school-of-computing-information-systems/scis-elective-course-list-for-specializations.html)

**Overall Program Requirements**

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| **Minimums** |
| 30 credits – Residency requirement (courses through AU) |
| 15 credits – Residency requirement in each of the majors (courses through AU) |
| 72 credits – **Senior** (300 or 400) level  |
| 72 credits – **In Science** |
| 45 credits – **Senior** (300 or 400) level **Science**  |
| 15 credits – **Senior 400 level Science**  |
| 6 credits – In Social Science  |
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| **Maximums** |
| 6 credits – At the preparatory (100) level |
| 75 credits – In **any one Science discipline** |
| 12 credits – Amount of senior project credits (495 or 496) |
| 30 credits – Prior Learning Assessment and Recognition (PLAR) |

**Programming Courses Note:**

**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.

**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.