# Bachelor of Science, Applied Mathematics Major, Computing Minor

## Four Year (120 credits)

**2025/2026** [Program Requirements](https://www.athabascau.ca/calendar/2025/undergraduate/program-regulations/degrees/bachelor-of-science-applied-mathematics-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) | 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) | 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) | 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/) | Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 27 | [COMP 206](https://www.athabascau.ca/syllabi/comp/comp206.html) or [COMP 268](https://www.athabascau.ca/syllabi/comp/comp268.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see **Programming Courses Note** below |
| Junior | 30 | [COMP 214](https://www.athabascau.ca/syllabi/comp/comp214.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 33 | [COMP 272](https://www.athabascau.ca/syllabi/comp/comp272.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 36 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Computing Minor electives below  |
| Jr/Sr | 39 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Computing Minor electives below |
| Jr/Sr | 42 | [COMP](https://www.athabascau.ca/course/index.html?/undergraduate/science/computer-science/) | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Computing Minor electives below |
| Jr/Sr | 45 |  | Option |  | [Social Science](https://www.athabascau.ca/course/index.html?/undergraduate/social-science/all/) |
| Jr/Sr | 48 |  | Option |  | [Social Science](https://www.athabascau.ca/course/index.html?/undergraduate/social-science/all/) |
| Senior | 51 | [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 | 54 | [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 | 57 | [MATH 309](https://www.athabascau.ca/syllabi/math/math309.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 60 | [MATH 315](https://www.athabascau.ca/syllabi/math/math315.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 63 | [MATH 365](https://www.athabascau.ca/syllabi/math/math365.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 66 | [MATH 366](https://www.athabascau.ca/syllabi/math/math366.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 69 | [MATH 370](https://www.athabascau.ca/syllabi/math/math370.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 72 | [MATH 376](https://www.athabascau.ca/syllabi/math/math376.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 75 | [MATH](https://www.athabascau.ca/course/index.html?/undergraduate/science/mathematics/)  | Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 78 | [MATH](https://www.athabascau.ca/course/index.html?/undergraduate/science/mathematics/)  | Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 81 | [COMP 361](https://www.athabascau.ca/syllabi/comp/comp361.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 84 | [COMP 378](https://www.athabascau.ca/syllabi/comp/comp378.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 87 |  | 400 Level Option |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 90 |  | Option |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 93 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 96 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 99 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 102 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 105 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 108 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| Senior | 111 | [SCIE 480](http://www.athabascau.ca/syllabi/scie/scie480.php) or [COMP 494](http://www.athabascau.ca/syllabi/comp/comp494.php) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 114 | [MATH 476](https://www.athabascau.ca/syllabi/math/math476.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 117 | [MATH 480](https://www.athabascau.ca/syllabi/math/math480.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 120 | [MATH 495](https://www.athabascau.ca/syllabi/math/math495.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |

**Overall Program Requirements**

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| **Minimums** |
| 30 credits – Residency requirement (courses through AU) |
| 15 credits – Residency requirement in the major (courses through AU) |
| 9 credits – Residency Requirement in the minor (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 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.

**Note: Computing Minor electives**

Students complete a minimum of 9 credits selected from the Computer Science ([**COMP**](https://www.athabascau.ca/course/index.html?/undergraduate/all/computer-science)) discipline at a junior or senior level.