# Bachelor of Science, Applied Mathematics Major, Game Design and Development 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 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 | [ENGL 255](http://www.athabascau.ca/syllabi/engl/engl255.php) | Required Core  English 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 230](https://www.athabascau.ca/syllabi/comp/comp230.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 30 | [COMP 282](https://www.athabascau.ca/syllabi/comp/comp282.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 33 | [COMP 283](https://www.athabascau.ca/syllabi/comp/comp283.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 36 | COMP | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Game Design and Development Minor electives below |
| Jr/Sr | 39 | COMP | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Game Design and Development Minor electives below |
| Jr/Sr | 42 | COMP | Minor Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Game Design and Development 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 318](https://www.athabascau.ca/syllabi/comp/comp318.html) | Minor Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 84 |  | Option |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 87 |  | Option |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 90 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/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 | [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 | 111 | [MATH 476](https://www.athabascau.ca/syllabi/math/math476.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 114 | [MATH 480](https://www.athabascau.ca/syllabi/math/math480.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 117 | [MATH 495](https://www.athabascau.ca/syllabi/math/math495.html) | Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 120 | [COMP 486](https://www.athabascau.ca/syllabi/comp/comp486.html) | Minor 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** (300/400) level |
| 45 credits – **Senior** (300/400) level **Science** |
| 15 credits – **Senior Science credits at the 400 level** |
| 6 credits – In Social Science |
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| **Maximums** |
| 75 credits – In **any one Science discipline** |
| 12 credits – Amount of senior project credits (495/496) |
| 6 credits – At the preparatory (100) level |
| 30 credits – Prior Learning Assessment and Recognition (PLAR) |

**NOTE: Game Design and Development Minor Electives**

Students must complete a minimum of 9 credits from the list below

[COMP 206](https://www.athabascau.ca/syllabi/comp/comp206.html), [COMP 214](https://www.athabascau.ca/syllabi/comp/comp214.html), [COMP 232](https://www.athabascau.ca/syllabi/comp/comp232.html), [COMP 266](https://www.athabascau.ca/syllabi/comp/comp266.html), [COMP 268](https://www.athabascau.ca/syllabi/comp/comp268.html), [COMP 272](https://www.athabascau.ca/syllabi/comp/comp272.html), [COMP 306](https://www.athabascau.ca/syllabi/comp/comp306.html), [COMP 308](https://www.athabascau.ca/syllabi/comp/comp308.html), [COMP 361](https://www.athabascau.ca/syllabi/comp/comp361.html), [COMP 369](https://www.athabascau.ca/syllabi/comp/comp369.html), [COMP 378](https://www.athabascau.ca/syllabi/comp/comp378.html), [COMP 390](https://www.athabascau.ca/syllabi/comp/comp390.html), [COMP 452](https://www.athabascau.ca/syllabi/comp/comp452.html), [COMP 466](https://www.athabascau.ca/syllabi/comp/comp466.html), [COMP 482](https://www.athabascau.ca/syllabi/comp/comp482.html), [COMP 489](https://www.athabascau.ca/syllabi/comp/comp489.html)