# Bachelor of Science, Applied Mathematics and Biological Sciences 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 Biological Sciences Major [Program Regulations](https://www.athabascau.ca/calendar/undergraduate/program-regulations/degrees/bachelor-of-science-biological-science-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) or  [COMP 210](http://www.athabascau.ca/syllabi/comp/comp210.php) | Required Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – if you plan to take more COMP courses, we recommend completing COMP 200. |
| 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/) |
| Junior | 27 | [BIOL 204](https://www.athabascau.ca/syllabi/biol/biol204.html) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – Lab Component |
| Junior | 30 | [BIOL 207](https://www.athabascau.ca/syllabi/biol/biol207.html) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – Lab Component |
| Junior | 33 - 36 | [BIOL 230](https://www.athabascau.ca/syllabi/biol/biol230.html) or [BIOL 235](https://www.athabascau.ca/syllabi/biol/biol235.html)  (6 credits) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Junior | 39 | [HLST 200](https://www.athabascau.ca/syllabi/hlst/hlst200.html) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Jr/Sr | 42 |  | Option |  | [Any Area of Study](https://www.athabascau.ca/course/index.html?/undergraduate/all/all/) |
| 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) | APMT 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) | APMT 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) | APMT 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) | APMT 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) | APMT 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) | APMT 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/) | APMT 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/) | APMT Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 81 | [BIOL 341](https://www.athabascau.ca/syllabi/biol/biol341.html) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 84 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Biological Sciences Major electives below |
| Senior | 87 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Biological Sciences Major electives below |
| Senior | 90 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Biological Sciences Major electives below |
| Senior | 93 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Biological Sciences Major electives below |
| Senior | 96 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – see NOTE: Biological Sciences Major electives below |
| Senior | 99 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – **Lab Component** – see NOTE: Biological Sciences Major electives below |
| Senior | 102 |  | BIOL Major Elective |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) – **Lab Component** – see NOTE: Biological Sciences Major electives below |
| Senior | 105 | [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 | 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 | [BIOL 401](https://www.athabascau.ca/syllabi/biol/biol401.html) | BIOL Major Core |  | [Science](https://www.athabascau.ca/course/index.html?/undergraduate/science/all/) |
| Senior | 120 | [ASTR 495](https://www.athabascau.ca/syllabi/astr/astr495.html) or [BIOL 495](https://www.athabascau.ca/syllabi/biol/biol495.html) or [CHEM 495](https://www.athabascau.ca/syllabi/chem/chem495.html) or [ENSC 495](https://www.athabascau.ca/syllabi/ensc/ensc495.html) or [GEOG 495](https://www.athabascau.ca/syllabi/geog/geog495.html) or [GEOL 495](https://www.athabascau.ca/syllabi/geol/geol495.html) or [NUTR 495](https://www.athabascau.ca/syllabi/nutr/nutr495.html) or [PHYS 495](https://www.athabascau.ca/syllabi/phys/phys495.html) or [SCIE 495](https://www.athabascau.ca/syllabi/scie/scie495.html) | BIOL 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. |

**Overall Program Requirements**

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| **Minimums** |
| 30 credits – Residency requirement (courses through AU) |
| 15 credits – Residency requirement in the 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) |

**NOTE: Biological Sciences Major electives**

Students must complete a minimum of 21 credits selected from the list of courses below. All 21 credits must be at the senior (300 or higher) level. A minimum of 6 credits must include science lab components.

[BIOL 310](https://www.athabascau.ca/syllabi/biol/biol310.html), [BIOL 320](https://www.athabascau.ca/syllabi/biol/biol320.html) (lab component), [BIOL 325](https://www.athabascau.ca/syllabi/biol/biol325.html) (lab component), [BIOL 345](https://www.athabascau.ca/syllabi/biol/biol345.html) (lab component), [BIOL 480](https://www.athabascau.ca/syllabi/biol/biol480.html) (lab component), [BIOL 495](https://www.athabascau.ca/syllabi/biol/biol495.html), [BIOL 496](https://www.athabascau.ca/syllabi/biol/biol496.html), [CHEM 301](https://www.athabascau.ca/syllabi/chem/chem301.html), [CHEM 350](https://www.athabascau.ca/syllabi/chem/chem350.html) (lab component), [CHEM 360](https://www.athabascau.ca/syllabi/chem/chem360.html) (lab component), [CHEM 495](https://www.athabascau.ca/syllabi/chem/chem495.html), [CHEM 496](https://www.athabascau.ca/syllabi/chem/chem496.html), [HLST 301](https://www.athabascau.ca/syllabi/hlst/hlst301.html), [NUTR 330](https://www.athabascau.ca/syllabi/nutr/nutr330.html) or [NUTR 331](https://www.athabascau.ca/syllabi/nutr/nutr331.html), [NUTR 405](https://www.athabascau.ca/syllabi/nutr/nutr405.html), [NUTR 406](https://www.athabascau.ca/syllabi/nutr/nutr406.html), [NUTR 495](https://www.athabascau.ca/syllabi/nutr/nutr495.html), [NUTR 496](https://www.athabascau.ca/syllabi/nutr/nutr496.html), [PSYC 302](https://www.athabascau.ca/syllabi/psyc/psyc302.html), [PSYC 355](https://www.athabascau.ca/syllabi/psyc/psyc355.html)

**Recommended Options** - As these courses are prerequisites for some electives, they are recommended for students majoring in Biological Sciences:

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| [CHEM 217](https://www.athabascau.ca/syllabi/chem/chem217.html) (lab component), [CHEM 218](https://www.athabascau.ca/syllabi/chem/chem218.html) (lab component) |