



**Senate Committee on University Planning**

**Academic Review Summary: Aviation BSc Program**

<b>Site Visit</b>	<b>October 13-14, 2021 (virtual via MS Teams)</b>
<b>Informal Response to Planning</b>	<b>February 7, 2022</b>
<b>Formal Response</b>	<b>March 7, 2022</b>
<b>Implementation Update</b>	<b>fall 2023</b>
<b>Midterm Review</b>	<b>winter 2026</b>

**Review Team Members:**

- Dr. Peter Williams, Professor, Physics Department, Acadia University (Review Team Chair)
- Dr. Amanda Cherpak, Director of Clinical Medical Physics, Nova Scotia Health Authority; Associate Professor, Radiation Oncology, Dalhousie University
- Dr. Joshua Kurek, Associate Professor, Department of Geography and Environment, Mount Allison University

**Note:** The following recommendations are taken mostly verbatim from the external review. For context they should be read in conjunction with the department’s formal response.

**Recommendations of the Academic Program Review**

- 1) Program coordinator – the coordinator is currently on a 9-month contract that does not cover the course registration period. The coordinator should be put on a permanent 12-month contract, given that the advising demand of Aviation students is often greatest in the late spring and summer.
- 2) There is currently only one aviation specific course at Mount Allison that is taught on a per course basis. Aviation students are looking for more aviation specific content from Mount Allison.
  - a. All science units should explore how to offer aviation content “across the curriculum”. For example, physics could include lab exercises on lift and drag an endeavour to include examples in introductory course that are specific to aviation – relative motion comes to mind.
  - b. All units should consider future Tenure Track hires that could bring aviation specific content into the curriculum. Occasional stipends should also be considered that could support Aviation-specific courses within the four programs that support the degree (i.e. Computer Science, Math, Physics, and Geography and Environment - CGMP)

- 3) Moncton Flight College (MFC) has a finite capacity for Aviation BSc students. Mount Allison and MFC need to enhance their already good communications to ensure that enrolment limits are respected.
- 4) The aviation program advertises itself as a wide-open program that permits students a wide range of science options to pursue. Both students and faculty commented on the reality being very limited by the pre-requisite structures that are in place for most upper-year science offerings.
  - a. Relevant units examine pre-requisites to allow easier access to upper-level courses wherever possible
  - b. Create realistic streams in the various science disciplines (CGMP) that clearly outline paths to upper-level courses
- 5) Students and faculty reported that it is very difficult to meet all the degree requirements at Mount Allison. The BSc major is currently 78 credits, which is the largest of all the science majors at Mount Allison and often more than most BSc Honours requirements!
  - a. Carefully examine the Mount Allison degree requirements to see if they can be reduced by 2 courses
- 6) The program does not have an academic home and therefore has no budget or dedicated space.
  - a. Consider placing the program in an existing academic unit – Physics seems an obvious choice as Fraser Turner is also affiliated with that Department and they have the capacity to take on additional programs more so than other CGMP departments that support various programs
  - b. This will also facilitate the creation of a stronger aviation student culture through supports to the Aviation Student Society and space for aviation students to “hang out”.
- 7) Aviation students reported that the transition from year one to year two of the program was challenging. It seems that many were surprised by various requirements for entering the second year – such as getting a suitable medical.
  - a. Organize an orientation event for first year students in the spring of their first year to familiarize them with what they need to do and what will be expected of them in year two.
  - b. Consider promoting a 3+1 option – three full years at Mount Allison followed by one year at MFC.
- 8) Aviation students reported that they frequently are overwhelmed at assessment times – mid-terms and final exams. These periods where federal certification assessments and Mount Allison mid-term exams have coincided in the past leaving students having to take many exams in the same period.
  - a. Clearly communicate in advance to both Mount Allison CGMP and MFC faculty mid-term and exam time periods so that adjustments can be made to minimize conflicts.
- 9) Remote instruction – MFC reported that one of the silver linings of the pandemic was remote instruction that alleviated the severe time crunch aviation students experience in years two to four of their program because of having to travel back and forth

between Sackville and Moncton. In addition to time saving, it is also a safety issue, particularly in winter months.

- a. Explore the potential of offering aviation students the ability to attend classes virtually from Moncton.
- 10) Alleviating pressures generated by the Aviation Program – the significant enrolments of the aviation program have created pressures within various academic units. It is time to direct some of the revenue generated by the program to those units to alleviate these pressures to ensure that enrolment levels can be maintained.
- a. Provide adequate TA funding to the introductory physics courses to preserve the experiential physics program
  - b. Explore the pressures in the Environmental Science (GENS) program (the most popular degree pathway of aviation students) to ensure that it can continue to support aviation students and also its other four-degree programs (BSc Env Sci, minor GIS, BA Env Studies, BA Geography).