

**From:** [Mike Nicholas](#)  
**To:** [Faculty Senate](#)  
**Subject:** Expression of interest  
**Date:** Monday, November 2, 2020 10:08:23 AM

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Dear Faculty Senate,

The department of Applied Mathematics and Statistics intends to apply for a grant to support a new signature core AMS experience. Without changing the 15 core credit hours currently taught by AMS, we will introduce ideas of numeracy, data literacy, and visualization in the following ways:

1. Extraneous calculus content will be replaced with an introduction to Data Science using Statistics and Linear Algebra.
2. Calculus instruction will be modernized to include more relevant applications and methods, including computational techniques.

This will modernize the mathematical content of Mines' core in a unique way and will expose all students to the valuable techniques and applications necessary for the campus' Mines@150 goals. These changes will result in differentiated and highly desirable students and will constitute a signature core mathematics/statistics experience. Every department on campus will be able to take advantage of students' familiarity with numerical techniques, data science, statistics, and linear algebra.

Sincerely,

The AMS undergraduate committee