

December 24, 2015

Brandon Bate
Department of Mathematics
Houghton College

Dear Sir or Madam:

I am writing to express my interest in participating in the proposed research study regarding the use of open source materials in undergraduate courses in linear algebra and abstract algebra. Although my department has no plans for me to teach abstract algebra in the near future, I am currently slated to teach linear algebra during the spring semesters of 2017 and 2018. Seeing as our institution is a small liberal arts college with around 1,000 students, we will likely be running only one section of this course each of these semesters, with an estimated 15-20 students per class.

I have never taught linear algebra before, but have used computational software in other courses. When teaching differential equations and calculus II, I made heavy use of Mathematica for in-class activities. These in-class activities have not only helped my students gain familiarity with computer algebra systems and their visualization capabilities, but also enabled my students to improve their conceptual understanding by providing them with the means to quickly check their intuition against computed data. In short, I consider the use of a computer algebra system in such classes to be of great pedagogical value.

During this past year, our department has switched our computer algebra system from Mathematica to Sage, which I administer on a virtual server hosted by our college (<http://sage.houghton.edu>). Although I haven't had the opportunity to use Sage this past semester, I am looking forward to using it when teaching complex analysis and calculus I this spring. In addition to Sage, our department also uses WeBWorK as our online homework system for our calculus courses and linear algebra. We have all had very positive experiences with these software systems and plan to continue using them.

I believe I speak for everyone in my department when I say that we are all very supportive of the open source movement and are eager to find ways to both further utilize, promote, and contribute to the development of these systems. I am looking forward to the possibility of participating in this study and am excited by the work UTMOST does in promoting open source resources.

Sincerely,



Brandon Bate
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December 21, 2015

Dear UTMOST Project:

Brandon Bate, a faculty member at my institution, is applying to be a faculty participant in your project. As his department chair, I am aware of the requirements for his participation in the project and I affirm that we will do everything we can as a department to schedule our courses to accommodate his participation (I foresee no issues with this).

Sincerely,

Rebekah B. Johnson Yates, PhD
Assistant Professor of Mathematics and Department Chair
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