



December 23, 2015

Dr. Beezer:

Please accept this application for my department to take part in the UTMOST Project's research project for which you have solicited participants.

Ouachita Baptist University is a small private Christian liberal arts college of about 1500 students in southwest Arkansas. As is the case with most of our upper-level courses, Abstract Algebra and Linear Algebra are offered on an every-other-year basis. Abstract Algebra I and II will be offered in the 2017-2018 academic year, and Linear Algebra will be offered in Fall 2018.

I teach the Abstract Algebra courses and have done so at OBU since Fall 2005. The only exception was the 2009-2010 academic year, which I skipped due to a spring sabbatical. The fall semester typically has around 10 students, and I have generally used a traditional lecture-oriented approach to the course. In recent years, I have been moving slowly toward an IBL approach by having student presentations once a week. The second semester typically has only 3 or 4 students and is typically taught in a seminar format. The only mathematical software I have used in these courses is requiring the students to submit work typeset in LaTeX. I have taught with Maple in both Linear Algebra and Calculus II, and I have used MathCAD in the entire Calculus sequence at my previous institution. That said, it has been many years now since I last had my students using any mathematical software other than for typesetting. I have also used a variety of software packages (Minitab, SPSS, StatCrunch) in my statistics courses. I have never used Sage or SageMathCloud.

Dr. Kayla Dwelle teaches our Linear Algebra course and has done so since she joined our department in 2007. She has spent the last 5 years gradually moving most of her classes to an IBL format, and took the first steps toward that in Linear Algebra last year. Her Linear Algebra class typically has about 15 students. She has made limited use of Maple in the course, before our software become old enough to become unusable. She has also required students to use LaTeX and statistical software. She has never used Sage or SageMathCloud.

The department has long been interested in increasing its use of technology in the classroom, but cost has been the primary barrier in the past. The growth of open-source software in recent years has given us hope that we will soon be able to formulate a plan for accomplishing this. As the department chair, I can confirm that I am certainly aware of the program activities and requirements, that our courses will be offered as indicated above, and that our participation has the full support of both the department and our administration.

Sincerely yours,

Jeffery D. Sykes
Chair, Department of Mathematics and Computer Science
Ouachita Baptist University