

Application to Participate in UTMOST Project

My name is Dr. Amanda Harsy, and I am an assistant professor of mathematics at Lewis University, a four-year, liberal arts institute located in the southwest suburbs of Chicago. I am currently finishing my second year in my tenure-track position. I teach a variety of math courses ranging from Calculus to Real Analysis. I am also a Project NExT Gold '14 Dot. I am applying to participate in the UTMOST Project.

About the Course:

Our department will offer a new linear algebra course, Applied Linear Algebra, in Spring 2016, and it will be offered every spring thereafter. This course will focus more on applications of linear algebra than on theoretical proofs in linear algebra. Most of the students who will take Applied Linear Algebra will be science majors, particularly Computer Science, Physics, Computer Engineering, and Mathematics. I am creating and teaching this course, and I will be the one to teach it in the future. This spring, I will use a free online linear algebra text from AIM's Free Textbook Initiative (Hefferon's *Linear Algebra*) along with a suggested text, *Coding the Matrix*. I am structuring this course to be project-based and am interested in incorporating open-sourced technology into the classroom for our projects. In its first semester, we are using MatLab for our labs mainly because I have experience using MatLab. Yet, many of our students are commuters, so implementing open source materials and programs would be very beneficial. I have heard great things about Sage and SageMathCloud, but I have never used them. I would be very interested in learning about Sage and using it in my classroom, especially in a project-based course like Applied Linear Algebra. Furthermore, since Lewis' Applied Linear Algebra is a new course, it would be easy to modify it in order to work with your UTMOST proposal. Since it is a new course with integrated computer tools and a commitment to making resources highly available to students, I think Lewis' Applied Linear Algebra course would be an extremely good fit for your project.

About Lewis University:

Lewis University is a comprehensive, four-year Catholic university, where the traditions of liberal learning, values and preparation for professional work come together with a synergy that gives the university its educational identity and focus. Founded in 1932, Lewis is a dynamic, coeducational university offering more than 80 undergraduate majors and programs of study, 35 graduate programs, and two doctoral programs. Lewis is also an Emerging Hispanic-Serving Institution (Federal recognition for institutions whose Hispanic student enrollment is greater than 25%) and is one of many schools sponsored by the De La Salle Christian Brothers, an international Roman Catholic teaching order. Lewis is located in Romeoville, Illinois, which is approximately 30 minutes southwest of Chicago. Lewis has nearly 7,000 traditional and adult students. Many are from the Chicago region, but international students represent more than 30 countries. Lewis welcomes students of all cultures and religious faiths, and it has a minority population of 32 percent. The seventh largest private not-for-profit university in Illinois, Lewis has been nationally recognized by The Princeton Review and U.S. News & World Report. Visit www.lewisu.edu for further information.



December 13, 2015

Dear UTMOST Project Personnel,

As Chair of the Department of Computer and Mathematical Sciences at Lewis University, I enthusiastically support our participation in the UTMOST project in our Linear Algebra courses and perhaps our Abstract Algebra courses, as well. Dr. Amanda Harsy will teach our Linear Algebra courses and use the tools and collect the data you require. Dr. Harsy is an innovative mathematics professor who always looks for ways to improve how she teaches her courses, and this effort will help her explore additional ways to do that.

Sincerely,

Ray Klump, Ph.D.
Chair, Mathematics and Computer Science
Lewis University