

UNDERGRADUATE MATH SEMINAR – Mark your calendar!

The next math seminar is scheduled for **Thursday, May 27**, during the common lunch hour, 1:20 – 2:15. It will be held via Zoom. More details will be announced in upcoming newsletters, via email, and they will also be posted on the Math Department's website under the Activities tab. Stay tuned!

Senior Writing and Pieces from Thesis

Hayley Coakley participated in the Senior Writing Seminar with Professor Kim Plofker

This Winter term I was able to experience the Senior Writing Seminar with Professor Kim Plofker. From the moment that I was able to send in my preferences for my thesis options senior year, I knew I wanted to be involved in the Senior Writing Seminar. This was an extremely unique opportunity since the focus for this year was on the history of Calculus. As a math major, my joy lies within the algebraic and symbolic side of what mathematics has to offer. That being said, Calculus is an amazon realm of mathematics that I was so eager to discover and learn about. I applied with this as my top choice and got it!

Throughout the course we met for the first two weeks as a class, either via zoom or in person. I attended in person and I am so glad that I was able to. I wouldn't have wanted to have it any other way. The senior seminar is a bit different than that of these since we get an overarching theme of the class and work to build up some background knowledge before we are able to really dive in. There was a series of presentations and small papers/assignments before we got working on our main paper. The ability to write a few mathematical papers before the final paper was extremely helpful since, as an English major as well, I was used to creative writing.

Whereas thesis students are often given a topic, problem or question they will focus on, the writing seminar allows you to pick a specific topic that lies within the overarching theme of the class. My final paper is titled *Figures: How they Defined Calculus Pedagogy*. Through looking at the history of Calculus with a focus on pedagogy I learned the true impact of the figure's creation during the 17th century. While the figure had been around and used in many texts beforehand, with calculus it began its role as a distinguishable defined entity representative of the text in which it is described. The figure, used in the ways calculus began adhering to, was necessary in the furthering of calculus pedagogy, and higher-level mathematics pedagogy as a whole. I was able to connect the original works of Newton and Leibniz with the first textbooks that came about for the teaching of calculus to the common people (see figure). In doing so, the figure became the link necessary to understand the new language Newton and Leibniz had created.

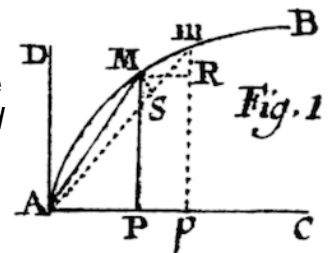


Fig. 1.1 Definition of the Differential

Overall, the experience was challenging but rewarding. I want to thank Professor Plofker for her dedication to each of us in the class as she helped guide us through to the end. I learned a lot about time management and, of course, the importance of figures throughout the development of not only calculus pedagogy but all of mathematical pedagogy. Being afforded the opportunity to explore an area I was interested in furthered my desire to engage in the course. I encourage those that are heading into their junior year to start thinking about which classes have made an impact on you. This course not only helped me learn about an area of interest but also prepared me for the next steps in my education as I move towards beginning my master's program in Secondary Education.

Math Club Hosting Another Trivia Night – Don't Miss the Fun!

The Math Club will be holding a Trivia Night **Thursday, May 13 at 5:30pm** over Zoom: <https://union.zoom.us/j/7365779779>. Come join the club for some camaraderie and competition – with a chance to win some great prizes. If you want more information or would like to get involved with Math Club, then reach out to President Lily Dong (dongl@union.edu).