Student Response to an Interdisciplinary Minor in Mathematics and the Effect of Inquiry Based Learning on Student Success. Preliminary report.

Northeastern Illinois University (NEIU), a comprehensive public undergraduate university located in the city of Chicago, serves approximately 9,000 highly diverse commuter students. NEIU is the one of two, four-year public Hispanic Serving Institutions in the Midwest. Our students are predominantly minority and/or first generation college goers with the greatest challenge in entering the STEM career pipeline. To increase student interest in mathematics and to support other STEM initiatives at NEIU the Math Department has established a new minor in mathematical modeling and has modified the undergraduate curriculum to support more inquiry based learning. The minor is supported by an NIH MARC U*STAR grant. Through the support of NSF, the department has added inquiry based learning and peer lead team learning for a standard Calculus II (integration, series, and sequences) course and an applied statistics course. In this work we present the feedback from the first four years of the minor where we focus the analysis on student surveys and present the impact the minor has had on the students’ current careers. We also look at the DFW numbers of those taking the inquiry based curriculum courses and the impact of being a peer leader that is supporting the courses. (Received September 25, 2018)