J. Todd Lee* (tlee@elon.edu). *SOTL-driven evolution of a university probability course.*

The growth of STEM disciplines (especially in data sciences) in middle-sized universities creates a new reality for the purpose and clients in an introductory probability course. In the initially investigated class, the instructor faced the challenge of providing a conceptual framework that is productive for the learning and application of probability to a broad range of majors (Lee, ICOTS10, 2018). The course serves as an upper-level elective for various STEM majors, a required course for math education majors, and a prerequisite for most concentrations in statistics. As with many data science classes, there is an ever-growing variation in the corridors of both prior-knowledge and future aspirations of the students. The granular density metaphor (Lee & Lee, 2014) was used as a core content element to address the needed multi-purpose structure. There is a need for reliable, primary intuitions about what probabilities “represent” in application and on how density functions work. The initial research was on the viability of using a metaphor that blends classical and subjective views on probability distributions. This paper reviews the initial findings and then turns to focus on the resulting reflections and modifications used in teaching the next iteration of the course. (Received September 17, 2019)