1145-C5-2258 William T Mahavier* (ted.mahavier@lamar.edu), W. Ted Mahavier, 155 Manor St.,

Beaumont, TX 77706. Discrete Mathematics as a Potential Gateway Course. Preliminary report.

Over the years, various mathematicians have proposed replacing Calculus with Discrete Mathematics as a gateway course to collegiate mathematics. When Lamar University's Computer Science Department asked the Mathematics Department to address the content of Discrete Mathematics, the CS faculty wanted their students to be able to understand and produce proofs. Discrete Mathematics was redesigned to emphasize depth over breadth, and after a decade of refining my course I believe that if this emphasis is retained, then Discrete Mathematics can be a better starting point than Calculus. In this talk we will discuss the notes I co-authored and some surprises I have experienced teaching from them. These notes are free, written in PreTeXt, accessible on any mobile device, and available on-line at www.jiblm.org/mahavier/discrete/html/index.html. (Received September 25, 2018)