

1086-G5-2872 **Shannon R Lockard*** (slockard@bridgew.edu). *Mapping Out the Invertible Matrix Theorem.*

Students often find the topics in an introductory linear algebra course to be disconnected and isolated. One of the most unifying theorems that students learn in linear algebra is the Invertible Matrix Theorem. However, students often fail to recognize the importance of this theorem that brings so many topics of the course together. Consequently, they fail to connect the topics of the theorem. In this talk, I will describe a discovery activity in which I have my students work out a map of the proof of the Invertible Matrix Theorem. The activity typically has three parts: an in-class group portion, a class discussion held the next class period that begins with the results of the group work, and an out-of-class assignment to wrap up the discussion. During the course of the activity, the students review important concepts, grapple with precise statements of definitions and theorems, clarify the results and consequences of these definitions and theorems, and finally make the connections between the topics given in the Invertible Matrix Theorem. (Received September 25, 2012)