

1086-VQ-1102 **Sarah-Marie Belcastro*** (smbelcas@toroidalsnark.net). *Introducing proof via discrete mathematics (with a twist or two)*.

Among the many ways there are to frame and structure courses that focus on introduction to proof, I will offer a significant twist on an existing theme. One part of the existing theme is to frame proofwriting as an ordinary but pervasive part of a content course; I will argue that discrete mathematics provides a superior milieu and the twist will be in the focus and choice of the curriculum. The other part of the existing theme is to structure the course around active learning, so that the types of activities used and the way the text is used support students getting lots of practice in working with proofs.

To succeed in using a content frame and an active learning structure, it is very helpful to use a textbook that is accessible to students and also provides assistance to instructors in creating classes that advance various introduction-to-proof goals. Admission: because I was unable to locate a text that suited me in these regards, I wrote one. I will describe the structure of the textbook and detail how I built into the text ways to help students acquire skills such as analyzing statements, using terminology well, and recognizing where to start in approaching a proof. I'll also note aspects of the textbook that (attempt to) reflect successful approaches of other texts. (Received September 18, 2012)