

1067-M1-520      **Penelope Dunham\*** (pdunham@muhlenberg.edu), Dept. of Mathematics and Computer Science,  
2400 W. Chew St., Allentown, PA 18104. *Proof Writing and Portfolios in a Bridge Course.*

As mathematics majors move from calculus into more abstract courses, they face the task of learning to read and understand proofs. Learning to produce their own proofs is an even bigger challenge for most students. I have found that portfolios are useful tools that help students develop their proof-writing skills and that give me an effective means of assessing student progress. Through portfolios, students can revise proofs, polish their writing, document their growth, and ultimately produce well-written and effective arguments. In this talk, I'll describe how I use proof portfolios as a major component in a 200-level "transition" course. The talk will provide details about initial instructions to students, the monitoring of student progress, the assessment process, and the role of portfolios in the final course grade. I'll conclude with student comments about the value of creating a portfolio and its effects on their mathematical understanding and writing. (Received September 08, 2010)