1035-F1-967   **Penelope H Dunham*** (`pdunham@muhlenberg.edu`), Muhlenberg College, 2400 Chew St., Allentown, PA 18104. *The "Write" Transition to Abstract Mathematics.*

Successful math majors must be able to read and understand proofs, construct valid arguments, and present those arguments in a clear manner. How do students develop those skills before they enroll in advanced courses? That is the question that motivated me when I developed "Transition to Abstract Mathematics" as a gateway to 300-level courses in our major. The focus of MTH 210 is fairly standard (understanding definitions, developing valid statements, constructing counterexamples, mastering proof types, crafting elegant arguments), as is the mathematical content (elementary number theory, sets, functions, and transfinite arithmetic). It is the pedagogy, however, that makes the course unusual and successful. MTH 210 is interactive, with inquiry-based activities, daily student presentations, and in-class critiques of faulty "proofs." It is a writing-intensive course, so students write papers, do frequent revisions, and engage in peer review. Finally, each student compiles a proof portfolio, a collection that reflects the breadth and quality of the semester's work and includes a self-assessment of progress. As a major portion of the final grade, it must provide sufficient evidence that the student has begun the "transition" from computational expertise to abstract thinking. (Received September 18, 2007)