

Meeting: 1003, Atlanta, Georgia, SS 2A, AMS-MAA-MER Special Session on Mathematics and Education Reform, I

1003-03-1050 **Iraj Kalantari*** (i-kalantari@wiu.edu), 1 University Circle, Mathematics Department, Western Illinois University, Macomb, IL 61455. *Logic as Compass*. Preliminary report.

For most early students of mathematics, deep understanding of intricate mathematical concepts is a challenging charge. Absorbing and reproducing proofs, as well as authoring one's first set of proofs, because it is a combination of subject and logic, is a major discouragement for many capable but inexperienced students.

At Western Illinois University, where we have about 100 mathematics majors half of whom are pursuing a career in teaching, we meet the students' needs by requiring every mathematics major to take, post Calculus II and before proof embedded courses, a course in logic.

I will describe the history, the nature, the success, and the structure of our course arguing for existence of a similar course in all institutions of higher education including those whose students generally absorb most of the material of such a course implicitly while taking advance mathematics topics. (Received October 03, 2004)