

1096-D1-1982 **Susanna S. Epp*** (sepp@depaul.edu). *The Evolution of an Introduction to Proofs Course.*

When I first started teaching an introduction to proofs course in 1978, I thought that having an entire course that carefully developed the basics about set properties, functions, and relations would solve the problem of student unpreparedness for courses like abstract algebra and real analysis. Although I believe that even the initial offering of the course was helpful, over the years I've made many changes. Most have been in response to discoveries that my assumptions about what students would find easy were contradicted by their work. The majority concern student difficulties with logic and language, especially in connection with quantified statements. A small example: Relatively recently I became aware that when I ask students to use other words to explain the meaning of the sentence "The negative of any rational number is rational," a surprising number respond by writing something meaningless. Although they usually express dissatisfaction with what they wrote, they genuinely don't seem to understand what the sentence means. In this talk I will share many of the discoveries I've made and the resulting changes in the course. I will also discuss the problem of convincing students that it is important to use careful language when writing proofs and disproofs. (Received September 17, 2013)