1035-U1-1979   **Kyeong Hah Roh*** (`khroh@math.asu.edu`), Department of Mathematics and Statistics, Arizona State University, Tempe, AZ 85287. *College students' understandings of conditional statements.*

This study explored college students' understanding of conditional statements of form " If p, then q", or , "$p \rightarrow q$". Semi-structured, task-based interviews were conducted with 23 students who had already taken a transition course designed to introduce logic and mathematical proofs in general. The analysis focused on what aspect of conditional statements these students do or fail to understand. The results of this study show students' understandings of logical equivalence to or a negation of conditional statements play a crucial role in solving problems and justifying their argument. In the presentation, we will show why students fail to understand certain aspects of conditional statements. (Received September 21, 2007)