What constitutes reliable evidence and how does one assess that evidence mathematically? Two members of Trinity College’s faculty have created and team-taught an interdisciplinary science course, ”Skepticism and Belief”, intended primarily to increase the scientific literacy of non-science majors. This course uses statistics, probability, and general graphical savvy to address issues from a range of contemporary and historical case studies in science. Topics include the powerball lottery, the space shuttle Challenger disaster, John Snow’s analysis of London’s nineteenth century cholera epidemics, and coincidence - from disease clustering to streaks in sports. Judith Moran, Director of the Math Center, and Barbara Walden of the Physics Department will describe the course and present some of the posters in which students reported and analyzed results from their own experiments. (Received September 27, 2000)