At the Rutgers Master in Math Finance program, our students regularly participate in competitions organized by the practitioners in the finance industry. The International Association for Quantitative Finance competition is very similar to the Interdisciplinary Contest in Modeling (ICM) where the students have to submit a 10 page research paper on a particular financial topic. The other competitions, such as the the PRMIA Risk Management Challenge and the CME Group University Trading Challenge all have modeling components behind their common goal of successfully managing some portfolios. In this talk, I will describe how these competitions fit into our Master program, both in terms of the curriculum and the practical training for the students while still on campus. I want to emphasize the gap that I have observed from the students applying their classroom knowledge to solve a “real world” problem; the challenges they face in selecting the right technical tools, in not over-complicating the problem and in communicating with their team mates. Finally I will relate this to my experience in advising two undergraduate students in the recent ICM competition, with emphasis on the difference between advising Master level and advanced undergraduate students. (Received September 14, 2020)