

1135-M5-3135 **Filip D Sain*** (fsain@exeter.edu), 20 Main Street, Exeter, NH 03833. *Game Theory for Less Advanced Students.*

A class on game theory was taught to high school students who had finished a year of calculus (BC). Various modifications of the common introductory game theory course were made: the Hotelling game was used as an introduction to the concept of equilibrium; Bayes Theorem was learned in the context of solving Kuhn Poker; properties of the Shapley value and the nucleolus were explored using specific examples from H. Peyton Young. The cumulative effect was a course which emphasized conceptual understanding and intuition over formal proofs. In addition to the applications above, the class read papers from economics, politics, and biology which, while not explored in depth, gave students an appreciation for the breadth of application of game theory concepts. We discuss how to structure a class for students with a limited background in mathematics, which focuses on applications, and which uses problem based learning in order to illustrate concepts. (Received September 26, 2017)