Surreal numbers and combinatorial game theory give undergraduate majors (in mathematics, engineering, and computer science) an opportunity to study mathematics outside of the "standard" undergraduate mathematics curriculum. In addition to studying the properties and strategies of specific games, the student encounters the partial ordering of surreals and the recursive nature of the definitions of surreal numbers. Students also learn to analyze game positions (or a series of game positions) using sequences of surreal numbers. In this talk, the studies of 3 undergraduate students will be summarized. (Received September 20, 2007)