Some Strategies for Teaching a Course Based on Douglas Hofstadter’s Gödel, Escher, Bach. Preliminary report.

Douglas Hofstadter’s Pulitzer-Prize 1979 winning classic Gödel, Escher, Bach can form the core of a thought-provoking Honors course (or Senior Seminar) for motivated students with an interest in logic, mathematics and/or computer science. Having now taught such an Honors course ten times (since 1991), I will outline a successful approach to the material that has evolved over time, covering most of the text (including Hofstadter’s proof of Gödel’s Incompleteness Theorem) while also exploring the music of Bach, the art of Escher, the works of Lewis Carroll, and the pioneering efforts of Babbage and Turing in computer science. (Received September 01, 2011)