Teaching Statement

Effective teaching requires more than just good material, it demands a presentation that is well thought out and adaptive. When preparing, I consider several possible ways to organize my lecture. Upon finding a way that succinctly illustrates the central ideas, I take out one blank sheet of paper for each eight minutes of lecture time available. I then record exactly what I expect to write on the board during my lecture. The next step is the most important: I read through each page several times trying to think of questions that could arise, and I write them in the margin along with suggestive diagrams. Through a process of iteration and clarification, I master the ideas from several angles; this allows me to suit my lecture to questions, and to actively encourage student participation.

I have experience developing curriculum materials. I was supported for one year by an NSF grant during which time I wrote workbooks and MATLAB programs, in collaboration with A. Weinstein and others, that were used in UC Berkeley's Calculus and Linear Algebra workshops and computer labs. I have also created software in response to students' difficulties; for example, when I taught Discrete Mathematics I found that the students did not understand the relevance of the algorithms, so I wrote and distributed software illustrating the components of the RSA public-key cryptosystem.