962-97-643 Robert M Kauffman* (kauffman@math.uab.edu). A Moore Method Course in Analysis.

It is commonly said that the Moore method of teaching is useful to teach "how to think", but cannot move fast enough to cover "content". It is the thesis of this talk that the best way to cover elementary analysis, from construction of the real numbers through differentiation and Riemann integration, power series, and the elementary functions is by using this method. Mathematical rigor arose to discuss just these questions. Students learn rigor best when confronted with a situation where lack of rigor is fatal. In this talk, we discuss a one year course taught many times by the speaker, covering the above topics. Specific suggestions will be made about content and techniques of handling classes of up to 30 students. Various mistakes made by the speaker in teaching such courses will also be discussed. (Received September 18, 2000)