

Abstract Submitted  
for the SES06 Meeting of  
The American Physical Society

**Distance Learning Courses and Master of Arts in Physics Education** RICHARD LINDGREN, STEPHEN THORNTON, University of Virginia — More than twenty distance learning courses in physics have been taken by hundreds of High School Physics Teachers over the past 7 years. The success of these courses helped initiate our 30 credit Master of Arts in Physics Education degree program. We have graduated 28 teachers over the last 6 years and expect 13 more to graduate in 2006. The candidates earn 14 credits in residence at the University of Virginia and 16 credits online. This allows teachers to matriculate, while earning more than half the credits at home. Presently, there are over 50 Master degree candidates. Three of the five online courses utilize CD-ROMS with edited lectures of live Physics courses taught at the University of Virginia by Physics Professors recognized for their teaching. Homework and examinations are submitted using WebAssign. Local high school teachers and administrators proctor the examinations. General communication and pedagogical feedback on homework assignments and exams are submitted through Blackboard as well as email. Screen captured video shots of physics demonstrations are widely used in the audio chat room to facilitate discussion and also used on examinations. We will discuss the changes of our distance-learning model based on what has worked (or not) and new technology.

Richard Lindgren  
University of Virginia

Date submitted: 15 Aug 2006

Electronic form version 1.4