

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Modular Approach of Nanophysics for Undergraduate Science and Engineering Curriculum Development** JAETAE SEO, EDMUND NDIP, JALE AKYURTLU, ATES AKYURTLU, Hampton University, HAMPTON UNIVERSITY COLLABORATION — Advances in nanoscience and nanotechnology are closely related with understanding nanoscale materials and their functionalization, which are still in their infancy. Further attention in the education of human-engineered nanoscale materials is needed before the beauty of nanoscience and nanotechnology becomes the reality of our modern life. The current urgent demand or existing challenge in nanoscience and nanotechnology is to educate, train, and prepare a new generation of skilled workers in nanoscience and nanotechnology. A modular approach of nanophysics for undergraduate curriculum development is introduced for educating students in multidisciplinary areas of science and engineering. The nanophysics educational modules are electronic dynamics and optical properties of semiconductor nanocrystals and nanometals. This work was supported by Army Research Office (W911NF-07-1-0608) and National Science Foundation (HRD-0734635, HRD-0630372, ESI-0426328/002, and EEC-0532472).

JaeTae Seo  
Hampton University

Date submitted: 27 Nov 2007

Electronic form version 1.4