Northeastern University
College *of* Engineering

Please join us for a

Chemical Engineering Special Seminar

Friday, March 2, 2012
108 West Village H
11:45 a.m. – 1:25 p.m.

"Characterising the Nanoworld: TEM"

Vlado K. Lazarov, Ph.D.
University of York, UK

ABSTRACT

Ability to characterise and control materials on the atomic scale is an ultimate goal of material science, and key for developing new materials and nano-technologies. Transmission electron microscopy (TEM) is one of the main tools for characterising the nano materials with spatial resolution of ~ 1Angstrom. In this talk I will give an overview of TEM application for structural and analytical characterisation of nanoparticles, thin films, heterostructures and interfaces by emphasising physical principles behind the TEM. I will also discuss the shortcomings of the current TEM techniques and possibilities for future improvement.

Biography: Vlado K. Lazarov is Royal Academy of Engineering Research Fellow at York Institute for Materials Research, and assistant professor at The University of York, UK. His research interest is in thin films growth, modelling and atomic level structural characterisation by advanced methods of transmission electron microscopy. Currently, his research focus is on polar oxide interfaces and material heterostructures for spintronic applications.

Refreshments will be served.