

Materials Engineering 297
Special Topics: Applications of Nano Materials
Fall 2009

Weekly Writing Assignment

Week 5:

Describe and explain the importance of materials characterization and analysis in nanotechnology. In your discussion, include a definition of at least three of the following techniques [AES](#), ESCA ([XPS](#)), [SIMS](#), [SEM](#), [TEM](#), [AFM](#)-STM (scanning probe), [X-Ray crystallography](#) and [FTIR](#) / [Raman spectroscopy](#). What does each technique do? What problems do they solve? How would you use them in materials analysis and characterization? This is a very big question, so please make sure to visit websites like [EAG Labs](http://www.eaglabs.com/) (<http://www.eaglabs.com/>) for tutorials.

Due October 1st 6:30pm