

Interested in Nanotechnology?

Fundamentals of Nanoscale Science and Engineering

Spring 2006

Primary instructors: Bruce Seely and John Jaszczak

Course number: UN 2600:

Time and Room:

Monday 10:05 – 10:55 am (crn 13950)

Wednesday 10:05 – 10:55 am (crn 13951)
127 Fisher Hall.

Course Summary: This 2-credit introduction to the basics of nanoscale science, technology, and engineering will be a team-taught reading and discussion class. We will survey key issues related to the development of nanoscale science and engineering, emphasizing the interdisciplinary nature of this field. Attention will be focused on three basic elements: the fundamental science, engineering and science applications, and the societal implications of this emerging science and technology. In a seminar format, students and faculty will discuss readings on nanoscience and technology; attend talks and meet outside speakers and campus researchers engaged in nanoscale research; and conduct small projects that introduce the current literature and research in the field. Students will also have the opportunity to visit state-of-the-art laboratories at MTU involved in nanotechnology research.

This course is required for the new minor in Nanoscale Science and Engineering (Nanotechnology)

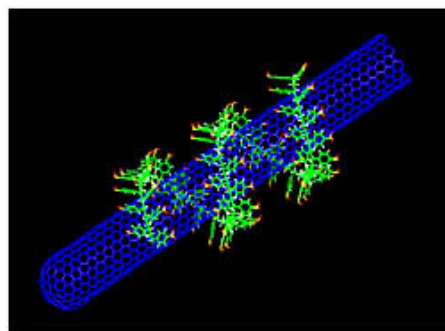
Primary Reading: Ratner, Mark, and Daniel Ratner, *Nanotechnology: A Gentle Introduction to the Next Big Idea* (Upper Saddle River, NJ: Prentice Hall, 2003).

For more information contact:

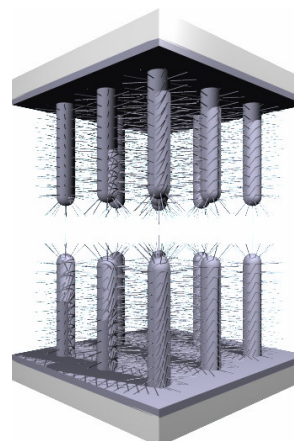
jaszczak@mtu.edu or bseely@mtu.edu



New Focused Ion Beam Milling system (Hitachi FB-2000A) in MTU's "Center for Nanomaterials Research".



Short length of a single walled carbon nanotube wrapped with a solubilizing Polymer molecule (polystyrene sulfonate)



Carbon nanotube-based micro-battery.