



Introduction to Nanotechnology

Pennsylvania Junior Academy of Science

September 22, 2007



Schedule

9:00 — 9:20	Welcome and Refreshments
9:20 — 10:00	Presentation "Introduction to Nanotechnology"
10:00 — 10:10	Break
10:10 — 12:00	Small Group Lab Experience and Tour

Group A

10:10—11:00	AFM Operation & Training
11:00—11:10	Break and Change Rooms
11:10—12:00	Clean Room Tour & Experience
12:00—12:15	Conclusion and Evaluation (B360)

Group B

Clean Room Tour & Experience
AFM Operation & Training

- **Description**

Nanotechnology is a new and emerging area of science that has the potential to create devices with totally new capabilities. The goal of this laboratory is to provide a scientific basis for understanding nanoscience and nanotechnology. By participating in this introductory laboratory experience, high school students will have an opportunity to:

1. Gain an accurate understanding of nanotechnology concepts and principles;
2. Observe the operation of an Atomic Force Microscope (AFM) that has the capability of seeing nanometer objects (1nm = 10⁻⁹ meter);
3. Tour the Petersen Institute of NanoScience and Engineering which is a state-of-the-art facility with extensive nanofabrication and characterization capabilities;
4. Indicate an interest in conducting a follow-up nanotechnology related science project.

