WHAT IS THE NATIONAL SCIENCE FOUNDATION REGIONAL CENTER?

The National Science Foundation Regional Center for Nanofabrication Manufacturing Education is a partnership for enhancing nanotechnology education. The partners include the National Science Foundation, the state of Pennsylvania, Penn State University, Pennsylvania’s community colleges, the State System of Higher Education, Penn College of Technology, CAMtech, MET Inc., secondary schools, private industry, and other participants.

The primary goal of the Center is to use the resources of the Penn State Center for Nanotechnology Education and Utilization to develop and support K-12 and post-secondary nanotechnology awareness and education. The Center is dedicated to introducing students to the full range and full impact of nanofabrication applications including biotechnology, pharmaceuticals, optoelectronics, information storage, materials manufacturing, and many others, as well as micro- and nanoelectronics.

WHERE ARE THE NANOTECH CAMPS HELD?

The Nanotech Camps are held at the Penn State Center for Nanotechnology Education and Utilization located in Innovation Park on Penn State’s University Park campus in State College, PA.

WHO CAN I CONTACT TO GET MORE INFORMATION?

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Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.
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Agendas are customized with selected activities from the 3-day agenda based on arrival/departure times, student ages, and group size. A local sponsor such as a school, church, or civic organization must sponsor a camp. The only cost to participate in the Nanotech Camps are costs incurred for the transportation to and from the Nanotech Camp and any additional activities not included in the camp agenda. These costs are to be covered by the sponsoring group.

The Nanotech Camp sponsor is responsible for the following:

- Organizing a group consisting of 15 to 20 students, plus one chaperone for every 4-5 students
- Arranging and funding all transportation to and from the camp
- Holding a meeting for participating students and their parents to review the Nanotech Camp agenda and other camp/organizational details prior to the camp
- Completing and submitting the parental permission forms
- Completing and submitting the required parental permission forms
- Completing and submitting the required registration form from the website

DAY 1 (HALF DAY)
- Welcome & Introduction to Nanotechnology
- Activities:
  1. Cleanroom tour
  2. Survey of Micro- and Nanotechnology Applications

DAY 2 (FULL DAY)
- Nanofabrication Processes Overview I
- Cleanroom Activities:
  1. Cleanroom tour
  2. Deposition
  3. Etching
  4. Cleaning
- Lunch with Staff Engineers & Technicians
- Pathways to Nanotechnology Careers
- Colleges/Universities and the NMT Partnership Programs

DAY 3 (HALF DAY)
- Nanofabrication Processes Overview II
- Cleanroom Activities:
  1. Self-assembly
  2. Probe techniques
  3. Characterization

DAY 4 (HALF DAY)
- Characterization