

Faculty Requests for the NCLT (Expectations by Group)

NCLT 2nd Annual Faculty Workshop
(DAY 1)

GROUP 1

1. Learn or develop concept inventories
2. Learn important topic in NSE
3. Learn assessment tools
4. Learn incorporation of NSE topics in individual courses
5. Develop courses for non-science major students
(consider social implications and general public perceptions)
6. Learn and formulate industry needs

GROUP 2

1. Find resources and share ideas for programs/grant development
2. Provide networking opportunities
3. Develop modern physics and quantum physics course for different grade level students including high school students
4. Develop interdisciplinary-content courses and faculty groups
5. Concerning little room for new courses, discuss and learn how we integrate "Nano" into existing course
6. Develop or share lab experiences in Nano-equipment (include "virtual" labs)
7. Discuss potential collaborators-how do big ideas play out in different sciences?
8. Develop undergraduate-minor program planning stages
9. What is core material students need to know for "Nano"?
And what applications?
10. Discuss or develop core curriculum in "Nano"?
What is "Nano" (tech size wise)?
11. Build flexibility preparing workforce
12. Ties industry with curriculum
13. Develop courses/principles/concepts that be taught?
14. Prepare students for dynamic fields
How do we do it?
15. Discuss and learn to prepare students for life-long learning
16. Integrate efforts within a campus and talk to other departments
17. Discuss how we can make "Nano"-attractive?

GROUP 3

1. Learn specific ideas for courses (content and concepts for courses)
2. Learn and share ideas for teaching (pedagogy)
3. Learn experiments (easy, cheap, demos, websites, or software), hands-on, interactive things in the classroom,
4. Build community through collaborations, relationships, joint research for education and teaching
5. Learn core for “Nano” by fields or disciplines?
6. Learn how band structures change as go to “Nano”?
7. Learn, develop, and share information for models and software
8. Develop remote experiments
easy to do experiments by using online programs
9. Broaden disciplines
10. iPod downloads—little snippets of “Nano”
11. Build database of people/expertise and develop as a social networking tool
12. Make publication in journals and articles (including education)

GROUP 4

1. Establish “Nano” class including introduction and survey for science and non-science majors
2. Develop curriculum including science, technology, social issues, ethics, and environmental issues
3. Learn about teacher (pre- and in-service teachers) training
4. Enhance holes in our individual “Nano” knowledge
5. Learn how to build a class, where to start, and other activities outside classroom