



MATH, SCIENCE & SOCIAL SCIENCE DIVISION

**Meeting Minutes**

Nanotechnology Technical Advisory Committee

Friday, June 18<sup>th</sup>, 2010

3:30-4:30 p.m.

BEIT Conference Room

**MEMBERS PRESENT**

Mark Helsel, Microvision  
Chad Goodwin, EnerG2/NSCC  
Jeanne Small, University of Washington  
Janelle Leger, WWU  
Vinny Casasanta, S & E Consultants, LLC

Dan Graham, Asemblon/University of Washington  
Sarah McQuaide, University of Washington  
Kathleen Stamm, KMS Designs, LLC  
Ethan Allen, University of Washington

**NSCC MEMBERS PRESENT**

Alissa Agnello  
Peter Lortz  
Brian Rucci

Maureen Devery  
Mary Ellen O’Keeffe  
Steve Miller

**I. INTRODUCTIONS (Graham)**

- The meeting was called to order at 3:30 p.m. Each person introduced themselves and company/college/university they represented.

**II. APPROVAL OF MINUTES (Graham)**

- Minutes of winter quarter meeting held on March 17, 2010
- Clarification on offering non-technical internships – it was decided to offer two quarters of technical internships only.
- Minutes were approved as written.

**III. UPDATES FROM NSCC NANOTECHNOLOGY PROGRAM (Agnello)**

- Current Enrollment – 32 students, 3 of which have completed all nano courses but haven’t graduated yet.
- Graduates for 2010 – 3 with AAS-T degree, and 1 Certificate.
- Enrollment for Fall 2010, nano 101 = 6 students to date.

- Curriculum changes were approved by TAC, CAS, and the State Board of Community and Technical Colleges; and will go into effect Fall 2010.
- Alissa handed out a hard copy of curriculum for the Nanotechnology AAS-T Degree.
- Main Changes to curriculum:
  - Incorporated different statistics (BUS) and internship (CWE) courses.
  - Microfabrication - Characterization, Packaging & Testing changed from one quarter to two.
    - Microfabrication is now NANO 220; and Characterization, Packaging & Testing is now NANO 230.
- Vinny asked how the statistics class fit into curriculum. Alissa explained there were 3 different statistics classes offered at North (Business, Math, and Nanotechnology) and the Business Statistics is most closely aligned to Nanotechnology. They use the same text book (Applied Statistics for Scientist and Engineers) and it is taught by a former quality control engineer, who is onboard with incorporating more nanotechnology into the course. The advantage to students is that it is offered every quarter.
- Mary Ellen asked about technical electives. Alissa explained it is a way for students to specialize a little more within the degree (e.g. computer programming, robotics, genetics, and electronics).
- AACC meeting – We were one of only two workshops that were nanotechnology related.
  - Discussion about having “industry only” portion of technical advisory panel meetings.
  - Mary Ellen said though it is very specialized for an AACC workshop people were extremely interested in the Nanotechnology Program.
  - Word about our Nanotechnology Program here at North is spreading to colleges across the country.
- Discussion about getting more local PR, Mary Ellen explained that Seattle coverage is very competitive and hard to get.
- Alissa reported that the first annual NSF report was successful, and next years funding was approved for a total of over half a million dollars.
- Ethan gave an update on Minor in Nanotechnology at UW (which was described more like “option” in some departments and “minor” in others). Some departments (Chemical Engineering) have already approved the “option” program and are formally up and running; other groups will be trickling in throughout this next year, while others will take a little longer to get on board. Ethan also stated that everything is progressing well.
- Alissa said every one at UW is excited about making credits transferable.

#### IV. SHINE UPDATES (Devery)

- Maureen stated that even though we got a late start with nano demos we still reached 94% of our program goals and 92% of our student goals.
  - Goal = nano demos in 18 classrooms teaching 360 students.
  - Achieved = nano demos in 16 classrooms and taught 301 students.
- Will have another program coming in July 2010 at Treehouse’s Summer Camp which provides services to foster kids, expecting to serve 30 more youth at this summer camp.
- Worked with 9 girls from Seattle Girls School internship program.
  - 14 curriculum hours as well as trip to NTUF.
  - Maureen stated that all the girls were very excited about the demos.
- SHINE was selected to participate in this years NanoDays.
  - NanoDays events and demos are held across the country every year for nano education and outreach.

- We partnered with Kids Quest Museum and had over 1000 visitors in 13 days.
- Talked to 200 students interested in nano technology at the Washington Technology Student Association Conference.
- Maureen reported that inreach programs here at North have been a big success.
  - Spring enrollment fair and the transition conference.
  - Communicated with ESL faculty to inform international student scientists about our Nanotechnology Program.
- Jeanne stated that our numbers were very impressive, comparably her center with 9 campuses and 200 members had 8,000 contacts all year, and we already have 2,000 contacts with one campus and very few members.
- Discussion on the importance of getting foster kids enrolled in college and involved in nanotechnology.
- SNAP (Student Nano Ambassador Program) – Four students fulfilled the program requirements, and each received a \$300 stipend.
  - Requirement = 30 hours of time helping with outreach events.
- Maureen reported that our 2<sup>nd</sup> NanoLunch was held this spring and was another huge success.
- Maureen and Alissa asked if any Technical Advisory Committee members would consider being a mentor to students coming through the program. The idea is that this mentorship program will bring students and industry closer.
  - Discussion followed on what the mentorship program should look like.
- Next big event will be the Train the Nano Trainer workshop (2010 focus – biotechnology) which will be held at Shoreline Community College and the University of Washington and will take place on August 12<sup>th</sup> through the 14<sup>th</sup>.
  - We already have 12 high school instructors and 2 community college instructors registered; there will be a maximum of 25 spots available.
  - Discussion on what demos and activities will take place at the TNT workshop.
  - Mary Ellen asked why it will be held at Shoreline CC – the idea is to have it held at different locations every year to increase local partnerships.

#### **V. QUESTIONS FOR INDUSTRY (Lortz)**

- For the sake of time Pete asked for an open discussion about how to handle future meetings.
- Discussion followed in reference to the NSF SHINE grant, as well as other STEM grants, workshops, and internships and as to whether students were planning to enter industry or transfer to the University of Washington.
- Alissa will follow up with email about questions for industry.

#### **VI. ADJOURNMENT (Graham)**

- Meeting was adjourned at 4:35 p.m.

#### **VII. RECEPTION FOR GRADUATES**