Internships in Public Science Education
Fall 2003

Office Hours

Aura Gimm Monday 9 - 11 AM or by appointment 735 Engineering Research Building jagimm@wisc.edu	Wendy deProphetis By appointment ipse@chem.wisc.edu

Team Mentors

Liquid Crystals as Sensors – Wendy deProphetis
Smart Papers – Aura Gimm
Societal Implications – Greta Zenner, Clark Miller

September – Information Gathering and Brainstorming

Goals

- Gain technical knowledge about the nanoscale and nanotechnology.
- Achieve an understanding of the different types of public science education.
- Learn the teaching philosophy and the creative development process of MRSEC.

Activities

- ❑ Search for background information on the nanoscale and nanotechnology.
- ❑ Observe children and adults in a museum setting – try to discern their learning style, attention span, and interest level.
- ❑ Learn about advanced and nanoscale materials tabletop demonstrations.
- ❑ Share an application of nanotechnology related to your field of study.
- ❑ Participate in a group discussion about public science education.
- ❑ Read materials about selected topics and brainstorm ideas for the project.
  - ❑ Contact the Scientific/Technical resources on/off campus
  - ❑ Present findings—background information, brainstorming ideas, etc.

Professional Development/Team Meeting Days

September 6 – Orientation at UW-Madison
September 16 – Introduction to MRSEC-created demonstrations
September 27 – Orientation at Discovery World, 9:15 AM
September 30 [Week 4] – Presentation of findings
Pre-workshop for ALPS

October – Creating and Interacting

Goals

- Create an activity or demonstration that can be delivered in a junior high classroom setting.
- Gain experience in educating the public about science.
- Develop an understanding of your audience.

Activities

- ❑ Deliver hands-on tabletop demos at Discovery World ("Educator's Night Out").
- ❑ Gather "data" about the content knowledge of your audience (e.g., asking questions).
- ❑ Discuss demonstration experiences with other interns.
- ❑ Create team project proposal.
- ❑ Meet with mentor to review and receive feedback on team project proposal.
- ❑ Review educational standards for 5-8 grades and look at junior high science textbooks.
- ❑ Read materials about selected topics.

Professional Development/Team Meeting Days

October 4 – Adventure Learning Programs High Ropes Course
October 9 [Week 5] – Interns at DW "Educator's Night Out", help lead activities
October 25 [Week 7] – "Expanding Your Horizon" on UW campus, lead activities
October 28 – Draft of Activities due, Activity Presentations
To be Scheduled – Wisconsin science education standards discussion

November and December – Development and Trial

Goals

- Lead nanoscale size activity and team activity in several classroom settings.
- Develop a complete set of materials for the team activity.

Activities

- ❑ Practice leading team activity in front of educators, IPSE staff, and interns.
- ❑ Review feedback from educators, IPSE staff, and interns with your team mentor.
- ❑ Decide how to incorporate feedback into your team project.
- ❑ Lead activities at Discovery World and local junior high schools.
- ❑ Solicit feedback from host teacher and student participants.
- ❑ Discuss feedback among team members and mentor.
- ❑ Revise activities based on feedback from host teacher and student participants.
- ❑ Finalize nanoscale activities for posting on the IPSE website.
- ❑ Read materials about selected topics.

Professional Development/Team Meeting Days

To be Scheduled – Team Activity Practice
November 22 – Science Saturday on Madison Campus (9 AM – Noon, Chemistry)
To be Scheduled -- Teaching Workshop with Jacque Troy