

Outreach Scholars 2009 Final Report – Sterling Tomellini

1. Project Title: Establishing a Network of Chemical Professionals in New Hampshire
2. Project Description

The goal of this outreach scholarship project is to establish a mechanism to encourage interaction between the students, staff and faculty of the UNH Chemistry Department and scientists and other professionals working in New Hampshire industry, government and education, who encounter chemical problems on a routine or intermittent basis. The specific mechanism which we intend to use is a workshop to be held at UNH which will provide an opportunity for chemical professionals from outside the university to showcase their scientific interests, concerns, accomplishments, etc. to the students, staff and faculty of the UNH Chemistry Department.

3. Background Information

I have found over the years that it is difficult to establish and maintain professional contacts with scientists and others in New Hampshire that are interested in chemically related issues. The reasons for this difficulty include: the people involved in chemistry related pursuits are not centrally located, they represent a wide variety of scientific diversity and there is no established mechanism for encouraging interactions between people who may have widely differing backgrounds, work requirements and interests. As a matter of fact, due to the way scientific conferences often are limited to very specialized areas, it has become more difficult for some scientists to interact with others outside their scientific sphere of interest. This may be especially true for the graduate and undergraduate students in our department.

4. Project Details

A workshop format will be the mechanism which will be utilized to accomplish the goal of increasing the interaction between members of the UNH Chemistry Department and other people interested in the chemical sciences in New Hampshire. The workshop will provide an opportunity for non-UNH participants to showcase their scientific activities and interests to the students (both undergraduate and graduate) staff and faculty of the UNH Chemistry Department, thereby facilitating future interactions between these participants, or possibly others in the organizations they represent. The workshop will be designed to maximize the likelihood of one-on-one interactions between the participants, especially between the student participants and the non-UNH participants. Preliminary plans are for the initial workshop to be held on a Saturday morning in October 2009.

As initially structured and envisioned, my partners for this project were to be the non-UNH participants who were to be invited to speak at the workshop. During the project development process, it became clear that there were significant advantages to expanding the role of the students, staff and faculty of the Chemistry Department from being “participants” to being “partners”. At the present time, the primary partners will be the graduate students who will be responsible, with help from me, for inviting and hosting the non-UNH speakers. This partnership serves the dual role of providing the graduate students with experience in inviting and hosting speakers while ensuring that they will establish contacts with off-campus participants who have similar scientific interests as a result of their efforts in support of the workshop.

Preliminary ground rules for the workshop have been established and discussed with a group of the department’s graduate students at a recent meeting. Highlights of these rules are:

- a) The workshop will be a forum in which non-UNH participants will be given an opportunity to showcase their interests, achievements, potential areas for collaborations or other topics which they deem will be of interest to the audience. To achieve the goal of establishing new contacts, people who are or have been recently engaged in collaborative efforts with members of the chemistry department will not generally be invited to give a presentation. Participation by former UNH students, who are residents of the state or who work in the state, will be encouraged but their presentation must focus on work or interests outside of UNH. The speakers will be selected, in consultation with our graduate student partners, allowing for a diversity of topics and speakers with widely ranging backgrounds.
- b) The workshop will be scheduled for a Saturday morning, possibly including lunch. Presentations will be limited to 12 – 15 minutes, allowing an additional 5 minutes for questions and discussion. Informal presentations will be encouraged. Ample time will be allocated for breaks to encourage discussions among individual participants.
- c) Graduate and undergraduate students will be encouraged to volunteer to be part of the speaker selection and invitation process and especially to host the speakers during the day of the workshop. Participation in the workshop by all members of the Chemistry Department will be encouraged. The graduate students, with faculty support, may decide to take over the organization of the workshop in subsequent years.
- d) Future workshops may be arranged around a theme, allowing for the invitation of several speakers with expertise/interest in a selected area.

4. Evaluation Plan

Several approaches will be utilized to evaluate the effectiveness of the workshop for establishing a professional network and fostering scholarship for the individuals involved. We anticipate employing two on-line surveys, one designed to assess the opinions, views and suggestions of the students and faculty (the UNH participants) and a second designed to assess the opinions, views and suggestions of the non-UNH participants, primarily the presenters and others non-UNH attendees. The questions will range from the very practical (seeking input about the facilities, ease of interaction between participants, etc.) to the substantive (questions aimed at assessing if the participants feel the workshop has provided them with information, contacts and potential collaborations). These surveys will be sent to the participants within one week of the workshop.

We anticipate that the scholarship component of this project will take place between individual participants over an extended period of time. Since these interactions may take a longer period of time to develop fully, we intend to re-survey the participants (both UNH and non-UNH) approximately 6 - 9 months after the workshop is held. The survey will again ask the participants to comment on their impression of whether the workshop has achieved the goal of fostering interactions between themselves, or the organization they represent, and other workshop participants. It will also request information concerning the types of interactions which have taken place, assess if the participant feels that subsequent workshop should held, and request suggestions for improving the workshop format or effectiveness.

One of the important indicators of success, which should not be overlooked, is the sustainability of the workshop format. If the UNH community (undergraduate and graduate students, staff and faculty of the Chemistry Department) have significant reservations or demonstrate only limited interest for participating in subsequent workshops then this will be taken as indication that the goals have not been met. Conversely, if the initial workshop generates sufficient interest in offering subsequent workshops, then this will be taken as an indication of the validity and potential sustainability of the workshop model.

6. Acknowledgement

It is important to acknowledge that many people, including other participants in this year's Outreach Scholars Program, the Outreach Scholars discussion leaders, students, faculty and staff of the Chemistry department and others, have made important contributions to the development of this project. I wish to gratefully acknowledge their contributions and encouragement.