

## **Nevada Space Grant Consortium Aerospace Workforce Development Interdisciplinary Nanotechnology Education Program**

The key activity proposed was the creation of an interdisciplinary degree minor in Nanotechnology. A comprehensive Nanotechnology degree minor requires participants from physics, chemistry, biology, earth sciences, and the various engineering programs. These units normally operate in a somewhat isolated manner in terms of curriculum. In order to counter this situation, the program features a broad selection of components that are intended to help develop all participants simultaneously, and to foster a "sense of community" between the shareholders from various disciplines. Many disciplines have important connections to various aspects of Nanoscience/ Nanotechnology and presently incorporate elements into various courses offered at the undergraduate level. A survey of such courses is being conducted to identify which courses should be on the list of "approved courses," but more importantly, this survey will help us identify instructional needs and gaps that can be further developed and integrated into the Nanotechnology program. Once needs are identified, we assist faculty in developing course materials/lectures that specifically meet Nanotechnology content needs. Based on a short proposal, selected faculty are able to use awarded funds for supplies or supplemental summer salary. The investigators are responsible for award decisions, and data is compiled on the effectiveness of the use of such funds. This data will help in assessments of the effectiveness of the award funding decisions.

In order to stimulate and support active student involvement in Nanotechnology, funds were made available on a competitive basis for students to participate in active research projects. Based on a short proposal prepared with an advisor/mentor, students are able to use awarded funds for the purchase of supplies. The investigators are responsible for award decisions, and data is compiled in a project summary report on the effectiveness of the use of such funds.

A program was implemented to support travel of visitors to enhance the academic and administrative elements of the program. Bringing world-class researchers and industry leaders to the universities is valuable for students and faculty alike. Additionally, we seek their input on developing this new educational program. The seminar series that will arise from this program also serves as a community-building activity, with all participating students, from all majors, being required to attend the seminars, which can potentially be integrated into courses.

The investigators/administrators conducts and supports various recruiting activities directed at advertising the new program and its opportunities to both current and incoming students as well as junior college and high school students making college decisions. Specific efforts are made to reach students from minority and under-represented groups in the science and engineering fields. These activities include open houses, visits to schools, college fairs, and science fairs.