Coordinator mixes high tech with the personal touch to make the UNM-LA Applied Technologies program unique

Bonnie Gordon

A unique program requires a unique approach. UNM-Los Alamos Applied Technologies Program Coordinator Dr. Irina Alvestad spearheads program that combines high tech knowledge with hands on skills. She is involved in every aspect of new associate degree program that rolled out this fall with a cohort of 14 students. The program is the only one of its kind in northern New Mexico. Alvestad handles everything from curriculum development to advisement.

Alvestad works with academics, technology experts, and working professionals to make sure the program functions optimally to prepare students for future careers. She also handles nuts and bolts matters such as setting up a website and ordering equipment. Most of all, Alvestad is a resource for the students in the program.

She balances her duties as program coordinator with her role as a member of the UNM-LA mathematics faculty.

"I strongly believe in students," she said. "I wanted to reach beyond the classroom and help students to pursue the right career."

A seven year grant of $700,000 from the Los Alamos National Security (LANS) has helped to fund the development of the new program. Money was only one issue however. Setting up a new technical degree program was quite a challenge, Alvestad said. The effort began with an assessment of the needs of northern New Mexico employers. Alvestad and the UNM-LA staff worked closely with businesses and organizations that employ technical professionals. An advisory board of technical professionals was recruited to help develop a curriculum and to advise on technical matters such as what state of the art equipment should be purchased for the program's classes. The board continues to be very involved with the project.

The program took shape around three degree concentrations: electro-mechanical, manufacturing and nanotechnology. A fourth concentration in solar technology is currently in the works and the first course in this specialty will be offered next semester, Alvestad said. The concentrations were developed with employability in mind and with salaries in the range of $40-00-$80,000 for technicians with a two-year degree, the program is attracting the attention of both traditional students and career changers.

The nine men and five women who began the program this fall are a diverse group.

"We have students just out of high school as well as older students who are changing careers. We also have people who have years of practical experience, but don't a formal education," said Alvestad. A

special scholarship program for Native American students has attracted three students from Zia and Jemez Pueblos. Alvestad is committed to knitting this patchwork group into a community of learners.

“I want the students to get to know each other so they can support each other,” she said. “And I want them to know me. I want to be someone they can talk to, not just a name on a paper.”

The program attracts a bright group of problem-solvers who enjoy working with their hands as well as their brains, said Alvestad. This diverse group needs diverse skills to work as technicians. They must learn both the mathematics required to understand circuits and vacuum systems and the hands-on skills like welding and milling. They need to be prepared to keep up with technology that changes on a daily basis. This combination can be daunting, especially for those returning to school after many years.

Alvestad advises students on how to use the program to best forward their helps them set up their schedules, but she also provides them with someone to talk to, and this someone can do math at the Ph.D. level, but is unswervingly committed to their success. She can be their cheerleader, but she also serves as a reality check.

“I tell students, you absolutely must do well in your classes. Not only must you be ready to take the next course in a sequence, but the best internships will go to the best students.”

It’s the combination of high tech and the personal touch that make this program unique. The experts on the advisory board, the faculty, the students and Alvestad form a community that thrives on the enthusiasm of the entire group.

No one’s enthusiasm tops that of Alvestad herself. “I love coming to work every morning,” she said. “How many people can say that?”

Alvestad loves to talk to anyone interested in the Applied Technologies program, including potential students, professionals in the field and employers interested in collaborating on internships. She can be reached at 662-5919 ext. 679 or irina@unm.edu.