

## UNM-LA offers Solar Technology Program

UNM-Los Alamos is letting the sun shine in with its new Solar Technology concentration, recently added to the Associate of Science in Applied Technologies degree. The popular Applied Technologies program trains technicians in a variety of fields, including nanotechnology, electro-mechanical and manufacturing technology, as well as solar technology. The Applied Technologies program attracts students who want to combine high tech knowledge with hands-on skills. A certificate program in Solar Technology is coming soon.

The solar program got off the ground in Spring 2010 and already has a number of students who say they are committed to completing the entire sequence of solar courses, said instructor Don Davis. Photovoltaics I was offered in the Spring and Summer sessions and Photovoltaics II will be offered for Fall 2010.

The courses in the Solar Technology Concentration are not just for those interested in earning a degree, Davis said. "These classes are perfect for homeowners. You learn everything you need to make your home truly energy efficient," he said.

Davis teaches pre-engineering at Los Alamos High School. He has been involved with solar energy for many years. In 1993, Davis won a Presidential Award for Excellence in Science and Mathematics Teaching for his work with solar energy in the classroom.

As the American Reinvestment and Recovery Act puts money into solar energy, opportunities in the field are expanding rapidly.

"Solar contractors are springing up everywhere in New Mexico," Davis said. "Students who earn this degree can go into business for themselves or join an existing company. The field is growing very quickly. If you go into a technical field, you'll probably be dealing with solar technology in some form."

The program stresses hands on learning. "I direct the students through the nitty-gritty of the system installation," said Davis.

In Photovoltaics I, students learn how to do a site analysis, take solar irradiance measurements and figure out the best location for equipment at a site. They also learn how to decide what equipment is best for a particular site. Students get hands-on experience with installation of a small system. When they progress to Photovoltaics II, students will install a large system on UNM-LA's specially built "practice roof".

As part of the program, UNM-LA has its own four module solar array. Visitors to the UNM-LA homepage can see up to the minute reports of the energy output of each module.

For Spring 2011, the program will offer a course in solar thermal technologies. In this class, students will learn how to assemble a hot water system and a hot air system.

“The course will cover anything that involves heat for your house from the sun,” said Davis. “We’ll investigate all the technologies. Students will learn what it takes to get a system up and running.”

This course will also include hands on installation experience, Davis said.

Students in the Applied Technologies Solar Concentration will take more general courses for technicians, such as Industrial Shop Practice, Drafting and Introduction to Technology. They will also choose elective courses in areas such as electronics and robotics.

More classes in solar technology are being added all the time. Davis hopes to add a class in solar architecture soon. In this class, students will learn how to refit existing structures. Students will learn about alternative architectures, such as cob houses, rammed earth and earth-berming in this course.

Getting involved with solar technology is not just a smart career move, it’s an opportunity to help the environment and save resources. There has never been a better time to become involved with solar technology.

To learn more about the Solar Concentration or the Applied Technologies program, call Irina Alvestad at 662-5919 ext. 679. For more information and to register, visit [www.la.unm.edu](http://www.la.unm.edu) . Call (505) 662-0332 for help with registration and enrollment.