Weather Finds Its Way Into Classroom at Canyon Country Campus

Even though College of the Canyons is a single college located on two campuses, students shouldn’t assume the weather at both Santa Clarita Valley locations will be the same on any given day — and now they can learn just how different the weather can be just a few miles away!

That’s because the COC campuses in Canyon Country and Valencia are both equipped with comprehensive electronic weather stations that are strategically positioned atop buildings and used in a variety of classroom applications.

“Installing the weather station is a great addition to the instructional technology available to staff and students at the Canyon Country campus,” said Dr. Dena Maloney, Vice President of the Canyon Country Campus and Economic Development. “Students and their instructors now have access to real-time data on the microclimate at our campus, which brings richness to the courses which have incorporated the weather station into the curriculum.”

Although the Valencia campus has boasted a working weather station for many years, the Canyon Country campus station was installed in summer 2010, and is one of only a few weather stations in the Mint Canyon area of Canyon Country.

Located in Quad-3 on the roof of the campus’ library, the Canyon Country weather station is equipped with the ability to monitor temperature, wind speed and direction, precipitation, humidity, approaching weather changes and solar radiation levels — while also helping to track long term climate change.

Both weather stations have proven to be useful teaching tools. In fact, the data collected from the two stations has been utilized in the geography and geology departments to teach students about meteorology by showing the measurable difference in climates between the two campuses.

“You can’t just assume that two places so close together will have the same weather,” said John Makevich, the college’s Director, Distance and Accelerated Learning, who also serves as an adjunct instructor in the geography department. “The wonderful thing about having both weather stations is that we can examine some of the small climate differences that occur between these two SCV locations.”

Indeed, because the weather stations produce an accurate weather reading about every three minutes, instructors now have access to a seemingly endless data stream of information to compare, contrast, perform case studies on and reference during class presentations and discussions.

One course that has implemented weather station data into the curriculum is Geography 103: Introduction to Meteorology. Providing an overview of the mechanics and processes of the earth’s atmosphere, the course also includes instruction on weather forecasting and global climate changes, and encourages students to explore the ongoing relationship between climate and weather.

And, because the course provides a wealth of applicable knowledge for students of all ages, and fills the physical science requirement needed to transfer, the course attracts many interested students who may not necessarily be pursuing a career in the sciences.

“Last semester, every week I had something remarkably unique to talk about when it came to our weather,” said Makevich, referring to the summer’s unseasonal rainstorms and fall heat wave that saw an all-time record high of 113 degrees in Los Angeles in September. “So we also
talked a bit about climate change and the weather patterns that trigger that change, and how that can affect our lives.”

Using the weather station for climate study also has classroom applications in the disciplines of landscape design, business management and environmental studies, which is a subject area the college is in the process of developing an academic program for.

With the arrival of the Canyon Country campus Applied Technology Education Center (ATEC), scheduled for completion in late spring 2011, there is also potential for the weather station to be implemented into courses dealing with solar energy, energy auditing, environmental engineering and green construction.

“Meteorology is one of the most relevant science classes that I can think of,” Makevich said. “By having students work with this weather data and apply it to real world situations what we are really trying to do is boost that student’s critical thinking ability.”