Enhancing Undergraduate Education

As the bell sounds the start of the 9:55 a.m. class, Verner Suomi, professor emeritus of meteorology, questions his students about the results of last week’s experiment. As the students answer, Professor Suomi takes note of the replies; some students reported opposite results.

At first glance, the class could be any one of hundreds of UW-Madison graduate seminars. Distinguished researchers sharing knowledge with graduate students is an everyday occurrence on campus. In this instance, the professor is a National Medal of Science recipient with a long list of accomplishments, including the invention of the spin scan camera used on weather satellites and an interactive weather computer system.

On closer examination, the class is quite different than it appears. The class isn’t a graduate seminar, and the students aren’t graduate students or seniors or even science majors. They are all freshmen, enrolled in one of eight small seminars open only to first-year students in the College of Letters and Science. Distinguished emeritus professors such as Suomi teach the courses.

In Professor Suomi’s seminar, “Learning About Science from the Atmosphere,” the students are given weekly “kitchen” experiments to perform at home. This week’s study pertains to an experiment in which students tested whether they were warmer at night with the covers loose or tight. Assignments range from visiting a UW Hospital pulmonary clinic to placing a vial of steel wool upside down in a container of water.

“Each of the experiments represents an everyday application of a law of science,” said Professor Suomi. “My goal is to make science fun for my students. At this stage, I don’t want to frighten them with complex mathematical formulas.

“Because the class is small, the students get to know each other very quickly. This is a tremendous opportunity for them to exchange ideas, problems and solutions with each other. That’s what makes science, or any other subject, come alive.”

Jason Birken, a freshman from Northport, New York, said, “I took the course to learn how science relates to my majors, comparative literature and political science. Professor Suomi makes the class interesting and fun.”

The seminars began in 1989 to enhance undergraduate education in the College of Letters and Science. Emeritus faculty were recruited by then Dean E. David Cronon.
A gift from the Milwaukee-based Schoenleber Foundation is helping to support the Freshman Seminar Program as well as an endowed scholarship fund. The funds are administered by the UW Foundation.

"Freshmen in the College are certainly benefiting from the generosity of the Schoenleber Foundation," said Donald Crawford, new dean of the College of Letters and Science. "The scholarships will help attract some of Wisconsin's brightest students to the UW-Madison while the seminars will boost their undergraduate education.

"Former Dean Cronon delivered a real bonus for the students when he created the seminars. The emeritus faculty enjoy teaching freshmen and the students relish the opportunity to learn from some of the University's most distinguished faculty. It's hard to say who benefits more—the students or the professors."

On a windy day atop the meteorology building, Professor Emeritus Verner Suomi explains cloud formations to his students. The class, "Learning about Science from the Atmosphere," is one of eight seminars designed to give freshmen an opportunity to study with distinguished emeritus professors.