

Harding / *continued*

“This group of students took several courses from me, and they keep in touch with each other and with me. Sometimes they want advice about their graduate studies; sometimes they just want to say ‘Hi.’ Mostly, they tell me what’s been going on in their lives since the last time I’ve talked to them. Other times, they just want to tell me that I taught them something.”

What Harding teaches is the study of microorganisms, living things that are so small you can’t see them without the aid of a microscope. In her classroom, she tells her scholars that “if it’s big enough to see with the naked eye, it isn’t worth looking at.”

Discovery . . .

Ethelynda Harding started college as a physics major. A year later she was a math major. She spent one semester as a psychology major and then somewhere along the line, she realized that what she was supposed to be all along was a biology major. You guessed it, in her junior year she changed her major to biology. She says her best biology teacher was a microbiologist. So it should come as no surprise that today Ethelynda Harding is also a microbiologist.

That’s her fascination with microbiology — microbes can do things metabolically and biochemically that other organisms can’t do. Bacteria are incredibly versatile; a teaspoon of soil contains more than 100 million bacteria — “all of them living in their niches.”

Research is another priority item for Harding. The professor and her students always seem to be involved in ongoing research projects — sometimes as many as three or four projects at a time.

One of Harding’s plant microbiology projects is funded by the USDA through Cotton Inc., a research arm of the Cotton Growers Association. The research focuses in on the bacterial count on cotton. The more bacteria on the cotton, Harding says, the more likely it is to be of inferior quality. Fresno was selected for this study because the dry climate produces high-quality cotton.

“Another area which we’re just getting started in is environmental,” Harding explains. “The people in the Civil Engineering Department are doing research on cleanup — things like selenium and wood preservatives. I’m beginning to work with them because it’s the microorganisms that carry out the cleanup — removing pesticides and all those contaminants we read about in the newspaper.”

An environmentalist at heart, Harding says she doesn’t see how students can fail to become interested in questions which are so vital to their survival, such as depletion of the ozone layer and the greenhouse effect.

The professor, who holds three degrees in biology including a Ph.D., points out that while enrollment in microbiology is decreasing at CSUF, job opportunities are increasing.

“In microbiology, more jobs are available than there are students to fill them,” Harding says. “I get probably twice as many people calling me wanting to hire students as I have qualified students to take the jobs. Microbiology students take a lot of chemistry. That, coupled with their microbiology courses, makes them quite attractive to industry. It’s a good major for professional school and good for going out and getting a job.”