

Western Piedmont improving study of biology through technology

By CHARLANDA CLAY OLLIS
News Herald Staff Writer

Imagine seeing hypothetical scientific situations take shape right before your eyes without using a calculator or a chalk board to plot data.

This type of efficient scientific approach is being used in many classrooms all across the nation.

In an effort to improve biology instruction in the classroom and laboratory, Western Piedmont Community College hosted a Biology Curriculum Improvement Project last week for about 55 community college instructors.

All 58 community colleges across the state participated in the computer modeling project, offering students, teachers and researchers with an expedient method of study-

ing problems that are difficult or impossible to study experimentally.

Jack Huss, dean of natural science/engineering at WPCC, said the goal of the project was to introduce instructors to the tools, techniques and technologies of computational science, which is sometimes known as modeling and simulation.

Naomi Patton, biology instructor at Western Piedmont and the president of the North Carolina Association of Two-Year and Community College Biologists, was instrumental in the organization of the management program.

Patton said this type of program offers participants hands-on experience to be able to understand problems in chemistry, physics, biology, environmental science, economics, political science, psychology and other academic disciplines.

Judith Kasperek, biology CIP director from Pitt Community College, said the goal of the program focused on faculty improvement and enhancing classroom instruction.

"We've got 58 community colleges, and each one of them is doing their own thing," said Kasperek.

Kasperek also added that this project dealt with upgrading instruction, particularly in terms of adding new instructional technology to all of the community colleges' biology instruction.

"We have instructors who are still at the chalk board stage. We have others who have been using computers extensively," said Kasperek. "Everybody needed exposure (to computers), and

Please turn to Page 10A



Computer aids a student in biological sciences.

Continued from Page One

whether they choose to use it, or not, is up to them. There is certainly nothing wrong with the chalk boards. They're an essential part of our teaching, but we can enhance that (teaching)."

More than merely learning new instructional techniques with computers, Kasperek said this event allowed instructors from all of the state's community colleges to come together as comrades working toward a common goal in the classroom.

"It is a chance for all biologists across the system to get together and share ideas and learn new techniques and just interact and network," said Kasperek.

"Part of it is just sharing con-

cerns with other instructors," Patton added. "In my level (of work) you have these challenges in the classroom... You ask other instructors, 'How do you handle these things?' It's that kind of networking and communication that comes out in these kinds of meetings."

Patton and Kasperek both said seeing actual concepts in motion was the most significant variation between computer instruction and fundamental direction.

"It's kind of hard showing a heart beating on a chalk board," said Kasperek.

"You can show concepts and phenomenon in motion instead of literally having to say, 'And now the heart contracts here,'" said Patton. "The computer actually lets (students) see something... They're

seeing graphic representation of physiology in action. And that makes a heart beat real for the students."

Kasperek said hypothetical simulation, the process of feeding data into the machine and obtaining modeled information, was one of the benefits of this type of computer instruction.

"You can manipulate all of the parameters (in science) to find blood pressure," began Kasperek. "You can watch graphs on the screen of the person to see what happens to their blood pressure. Human experimentation is kind of limited right now, but simulations allow you to do things on the computer that you couldn't do otherwise."