The goals of the project were to create a nature trail that would allow for a variety of uses. The trail winds through a wooded area and crosses a small stream several times. Along the trail, seven areas have been identified for development as stretching/fitness areas. These areas will allow users who choose to use them as a place to perform simple body stretches to relieve tension and promote a healthy lifestyle.

A second goal was to provide an area for undergraduate students of the college to learn simple assessments of water quality. Access to the stream from the trail allows for obtaining water samples for laboratory analysis. This will be particularly useful for introductory biology classes to observe the variety of life forms present in this sort of aquatic environment. A microscope purchased through the grant will be used to observe water specimens. A key aspect of this microscope is the capacity to store images from the microscope to computer disk, allowing for an ongoing electronic record of work done at the area.

Thirdly, identification of the existing plants and trees in the area has begun. This project will continue and will be valuable for the community as well as the college. The horticulture area of the college will use the trail’s plant identifications for the purpose of educating their curriculum students. Video taping of the specimens will allow presentation of plant life in different stages of the life cycle over a number of seasons.

Finally, a small meeting area has been developed at the beginning of the trail. This area will be used for seminars and outside classes for students. Student groups will also be able to use the area for club meetings and gatherings. Video of speakers will be archived for a record of activities at the site.

Following are pictures of the project:
One of the five bridges with solar lighting

Personnel from Grace Graphics installing new sign.

Example of stretching routine.

Instructor explaining the life cycles of mushrooms.

Student using new microscope.
Students participating in leaf identification using manual.

Contractor personnel leveling the soil in the lecture area.

Principal Investigator using the new video camera for recording class participation.

A view from the SUI trail.
GREENWOOD – A “Demo-Scape” nestles within the 69 acres comprising the Lex Walters Campus - Greenwood of Piedmont Technical College. Dale Smoak (department head, Natural Sciences) and Dale Wilson (director, Physical Plant) coined the word to describe an outdoor laboratory offering unique opportunities for learning, exercising, or just plain enjoying Mother Nature.

Starting last March, Wilson and Smoak pooled their individual talents and backgrounds to earn a mini grant. Called SUI (Sustainable Universities Initiative), the grant is an effort to increase understanding of sustainability and environmental issues within the state’s higher education community.

A joint endeavor begun by Clemson University, the Medical University of South Carolina and the University of South Carolina, SUI now counts 13 additional colleges and universities among its partners. Among them is Piedmont Tech. Through a one-time appropriation from the state’s Capital Reserve Fund, SUI supports projects that address environmental education.

“This year’s project evolved from a long-term dream of PTC President Lex Walters. To complement the numerous indoor learning labs and classrooms on campus, Dr. Walters wanted to create an outdoor environment for learning,” Wilson said. “I approached Dale with the concept, and he put together a proposal. He then submitted a narrative to the SUI committee, including a budget, timetable, goals and activities.”

“Because Piedmont Tech sits in the midst of an industrial area, we were amazed to discover approximately seven acres of undisturbed natural habitat on back campus,” Smoak said. “This wooded acreage proved the ideal location for our project.”

“Student/faculty involvement is key to this grant,” Wilson pointed out. “The horticulture and science departments and student groups have been actively involved since the beginning. Marion Bledsoe (instructor/coordinate for Horticulture Management) and his students continue to identify and label natural plants for instruction in various curriculums. Members of Phi Theta Kappa International Honor
Society have agreed to host special guests and tour groups. Staff members Brenda Holland and Fran Wiley have handled administrative tasks. College maintenance and grounds departments assume responsibility for site safety."

While Tech faculty, staff and students completed much of the site preparation, contract workers cleared dense underbrush, restored an amphitheater and built bridges, handrails, steps and signs. Solar lighting was installed around the amphitheater, bridges and classroom areas.

The outdoor learning lab incorporates a nature trail, six feet in width and approximately one-half mile in length. The winding, woodland trail connects to five bridges over a stream for observation of plant and animal life.

The natural stream was used by soldiers during the Civil War, as an historic marker on Emerald Road attests. Still standing on the site is the old spring well.

Plant and animal life abound here. “We have already spotted signs of raccoons, turkeys and numerous other wild birds, deer and foxes,” Smoak said. “A type of green algae, which is rarely seen in the winter, has been observed along the stream. The stream also affords the ideal environment for collection of water samples. We’re setting up aquatic labs and collection stations for this purpose.”

Purchased with SUI grant monies, a microscope and video/digital camera will allow students and instructors to study and document plant and animal life, noting changes brought on by the seasons and other factors. A collection of resource materials provides additional suggestions for optimum use of the outdoor learning laboratory.

The natural environment inspires countless other academic pursuits. Examples are creative writing for English classes and photography and sketching for the Commercial Art program.

“An amphitheater provides a natural setting for outdoor seminars on such topics as botany and environmental issues. We plan to invite nature and wildlife speakers, such as Rudy Mancke and representatives of The Wild Turkey Federation,” Smoak added.

Students can also use the nature trail and amphitheater for such activities as Earth Day.

Still another application of the Demo-Scape is health and fitness education. “At several points along the trail, fitness stations for stretching and moderate exercise will accommodate on-campus walkers,” Smoak said. “To ensure that stretching stations are
used appropriately, we asked local fitness expert Ellesor Holder to walk the trail and help in writing instructions at each station.”

Coordinating SUI endeavors on the Tech campus is Wilson’s role. Under his tutelage as “Fellow,” the college has earned grants for the past two years.

The first, involving instructor Mike Reid and students enrolled in several curriculums, qualified with an energy maintenance project. They adapted motion detectors to activate electric light switches and used natural composting with leaves and other debris to beautify the landscape.

This spring, Smoak and Wilson will present their project before the SUI Committee in Columbia. College personnel are currently brainstorming ideas for the next SUI project.

“All SUI projects are ongoing,” Wilson concluded. “Both students and faculty/staff will continue to develop and maintain the outdoor learning laboratory. We invite the general public to join us in this unique opportunity to learn through Nature.”

To schedule a visit to PTC’s outdoor learning laboratory, contact Smoak at 864-941-8453 or Wilson at 864-941-8331.

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