

STUDENTS CREATE VEHICLE FOR SERVICE LEARNING

UL Lafayette students are preparing to hit the road to educate others about sustainable living. The RUN-bus, a modified school bus, will serve as a mobile classroom for demonstrations of clean energy, energy-efficient building strategies and community-based food production. It will include seating, cooking and sleeping facilities, and a 12-foot-square, foldout stage.

UL Lafayette student Chance Gabehart organized the Resourceful University Network, a non-profit student group devoted to environmental awareness, in 2008. "We were looking for a fun way to network with other people with the same interests. During one of our meetings, someone suggested a bus that could run on used cooking oil."

Gabehart purchased a used bus for \$1,500 and donated it to the non-profit group. "We wrote three grants, none of which were funded, but we learned a lot in the grant-writing process. It forced us to solidify our ideas," he said. Gabehart is a senior majoring in general studies, with a focus on liberal arts and a minor in business.

Dr. Barbara Benson, an assistant professor of environmental science in the Department of Renewable Resources, became the group's faculty liaison last year. She wrote a successful \$12,655 grant, funded by the University of Louisiana System's service learning program. RUN also has received more than \$15,000 in donated matching contributions from community sponsors, Benson said.

Students have been involved in every step of the process. More than 100 of them have contributed to the project. Some received course credit for designing components of the exhibition vehicle.

"Industrial design students worked out the plans for the interior and the aesthetics of the exterior of the bus. Mechanical



Chance Gabehart, founder of the Resourceful University Network

engineering students designed the fold-out stage and civil engineering students developed plans to elevate the roof," Benson said. The bus will also include solar panels.

Students at Louisiana Technical College, who are following designs created by UL Lafayette students, are modifying the bus. Students at the Teche Area Campus in New Iberia raised the roofline and created the framework for the stage, which will fold out from the side of the bus. Students at the Evangeline Campus in St. Martinville prepared the exterior of the bus for painting. The project is expected to be complete by this summer.

The RUNbus will be used in a variety of settings, including schools, university campuses and community events. It will also be available to

transport UL Lafayette students to competitions and conferences.

"Our students have shown creativity in their work on this project. With the RUNbus, they will be able demonstrate practical, affordable strategies to solve real-world problems, while highlighting local resources," Benson said. ■

GULF OF MEXICO DEAD ZONE



direction of alternative fuels and I got real fired up about that," Benson said.

She brings real-world experience to her classroom and laboratory. In the 1980s, she worked for the Louisiana

Department of Natural Resources, where she oversaw one of the state's coastal management programs. She also worked for the Louisiana Department of Environmental Quality, as a program manager for its Hazardous Waste Division.

In 2003, she earned a doctoral degree from Louisiana State University in civil engineering, with an emphasis on ecological engineering. "I ended up doing my dissertation on growing algae," she said.

At UL Lafayette, she's growing and testing algae collected in the water of the Gulf of Mexico's dead zone, which forms at the mouth of the Mississippi River each spring and grows throughout each summer. In the spring, water flowing from streams and rivers to the gulf is overloaded with nutrients from agricultural runoff, wastewater treatment plants, septic tanks and industrial waste.

The excess nutrients cause an overgrowth of algae, which bloom then die. They sink to the bottom, where they decompose, robbing the water of oxygen. Without oxygen, the water cannot support fish, shrimp