

heroes at heart

# taking it out of the Classroom

Engineers Without Borders at UF



**M**ost Americans take garbage for granted. A truck pulls up, empties a bin and hauls the trash to a landfill.

UF's chapter of Engineers Without Borders, a non-profit humanitarian organization helping developing communities, started in 2005 when it traveled to Kratovo, Macedonia, to design a system for garbage collection and disposal.

Macedonia has been independent since 1991, and is still organizing itself — a task complicated by poverty. In Kratovo, residents weren't aware of risks of environmental contamination, UF's Engineers Without Borders faculty adviser Angela Lindner said.


"As a result, trash was piling up just about everywhere in the city, even in the river. They didn't realize how dangerous it was," she said.

Gator Engineers are focusing on collaboration to share the engineering and design know-how to keep the system functioning once they depart. The UF team designed educational materials for children and teens so they can take over stewardship of their community.

UF's student engineers are getting more than a valuable education, too, as they hone their engineering skills.

"The lives of our students and mentors are enriched, perhaps more so than those in their target communities," Lindner said. "Rarely are these lessons of the heart learned in traditional engineering design courses as they are in our EWB projects, which must involve an awareness of the economic, environmental, and social impacts of their designs."

In New Orleans, EWB is experimenting with ways to recycle used latex paint in the wake Hurricane Katrina's reconstruction boom, which is generating huge amounts of paint waste. In Cambodia, students are working on a pump system for crop irrigation. That project has benefits that go beyond agriculture, Lindner said. Fetching water for irrigation is primarily done by girls and women. Once that's automated, the girls can go to school. There's also an economic boost, since UF engineers are focusing on using materials that can be obtained in Cambodia.

"Once you set foot in a developing community, the collaboration never ends," Lindner said. "It's a holistic approach to engineering. I cannot imagine any more fulfilling work on campus than mentoring our students in engineering principles and, in turn, giving back to those in need." 

inspired?

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