

## **Sustainable Futures Receives \$3.6 Million**

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MAY 28, 2004 -- What kind of program is this?

Engineering graduate students with a social scientist as an advisor? Students spending one semester in extreme northern Michigan and the next just a stone's throw from the Mississippi delta?

Cajun pasties, anyone?

This cross-country, cross-cultural experience all stems from a new \$3.6 million grant from the National Science Foundation (NSF) to fund the Sustainable Futures IGERT. Michigan Tech and Southern University in Baton Rouge, Louisiana, will operate the program beginning this fall.

IGERT stands for Integrative Graduate Education and Research Traineeship. NSF funds IGERT PhD programs in areas that cross traditional academic boundaries, with a goal of increasing the number of US PhDs in engineering, science and mathematics (with particular emphasis on underrepresented students).

Maybe the "E" in IGERT should stand for "eclectic."

The program takes advantage of Michigan Tech's leading role in sustainable or "green" engineering and Southern's expertise in both engineering and public policy, mainly through its Nelson Mandela Institute of Public Policy and Urban Affairs.

"We're offering graduate students a \$30,000 per year stipend," said John Sutherland, one of the IGERT leaders and Henes Chair Professor of Mechanical Engineering at Michigan Tech. "That's about double the normal stipend. Students from many different curricula can participate."

At Michigan Tech, for example, students can participate in projects covering industrial coatings, fuel cells, windmills, space station water reuse and ethanol production from biomass. Participating researchers come from such diverse disciplines as mechanical engineering, chemical engineering, social sciences and civil and environmental engineering.

The first group of students will begin their PhD studies this fall--eight engineering students at Michigan Tech and four public policy students at Southern.

Students will spend the first semester at their host institution, then all 12 will spend the spring semester in Baton Rouge. In the fall of 2005, all of the students will spend a semester at Michigan Tech. All of this will be augmented by distance learning generated by both universities and a required industry internship.

"This approach will create a community of scholars among these 12 students and their faculty mentors," Sutherland said. "They are expected to take coursework in engineering, environmental science, social sciences, business, and international development and have their research incorporate these disciplines."

"I'm really excited about this opportunity," Sutherland said. "It ties in with so many things happening at Michigan Tech, including our new Sustainable Futures Institute. The 'environment' is one of the university's most important thrusts, and the IGERT award recognizes our strength in this area and allows us to expand on our research and education efforts."