



L&C Receives Multiple Grants from National Science Foundation

October 5 2012 9:42 AM



GODFREY - Lewis and Clark Community College recently received not one, but two, prestigious grants from the National Science Foundation's Advanced Technological Education Program in support of its annual Trebuchet competition and hybrid electric vehicle (HEV) service technology.

Trebuchet is an event that brings high school students from across the Riverbend to campus each year for a competition that incorporates STEM-based (Science, Technology, Engineering and Mathematics) learning objectives with hands-on design and construction opportunities for those participating. Teams of students use engineering knowledge to build a medieval siege weapon, and then compete for distance and accuracy. As part of the competition, participants also submit CAD drawings and a report documenting their design and testing process.

The grant will help spread the event to more schools, including those outside of the district, and allow the college to strengthen and build collaborative relationships with engineering schools and industries in the region and track enrollment histories of engineering students. The project aims to generate more interest in STEM-based fields among area high school students, particularly among women and minorities. Southern Illinois University, Missouri University of Science & Technology, Covidien Pharmaceutical and Boeing are collaborating partners in the effort.

"This is a great opportunity for the college. The funds will allow us to further reach out to potential engineering students in our district and beyond, including those from underrepresented demographics, by sparking interest in engineering and related fields and educating them on what it means to be an engineer," Trebuchet coordinator Kevin Bodden said. "In terms of importance, roughly 5 percent of bachelor's degrees awarded in the U.S. are in engineering, compared to about 30 percent in China. Increasing the number of U.S. students majoring in engineering is extremely important to keeping the U.S. competitive in a global economy."

"Receiving two NSF grants is a testament to the continued goal of the college to strengthen ties with the community and educate students in current high demand fields of study," Bodden said.

The second grant is for the college's hybrid electric vehicle program, within the Automotive Technology department.

Lewis and Clark has developed HEV-infused professional development throughout its automotive technology program. The program, which has been updated to include a variety of HEV car models and to transition to plug-in hybrid models, has expanded its reach in recent years to include local high schools and has focused on the recruitment of underrepresented groups like females and minorities. One goal is for the program to revise and update Lewis and Clark's transfer program agreement with Southern Illinois University Carbondale (SIUC), which is a major partner in this project. Other partnerships include those with local automotive repair businesses (Toyota and Ford), which will be sustained and strengthened as part of this project.

"This grant would not be possible without the support of Macomb Community College in Warren, Mich. Macomb gave us a \$30,000 seed grant, sub-awarded through the National Science Foundation last summer to start-up our HEV curriculum. They have been extremely supportive of our ideas, and without their support, we wouldn't have received the NSF funds," said Chris Reynolds, assistant professor in Automotive Technology. "Our program is thrilled to be selected for such an amazing opportunity. This funding activity will allow us to reach out to our students and peers to provide them with training critical for servicing the HEV population safely, efficiently and effectively."

Lewis and Clark's automotive program is all inclusive, and is a Master Certified program through ASE/NATEF.

"The fact that we received two grants from the NSF proves how proactive the college has become. It also proves that we are a leading post-secondary institution that can compete with larger, more expensive schools in the region with comparable core programs," Reynolds said.

To learn more about Trebuchet or Automotive Technology, visit www.lc.edu.