

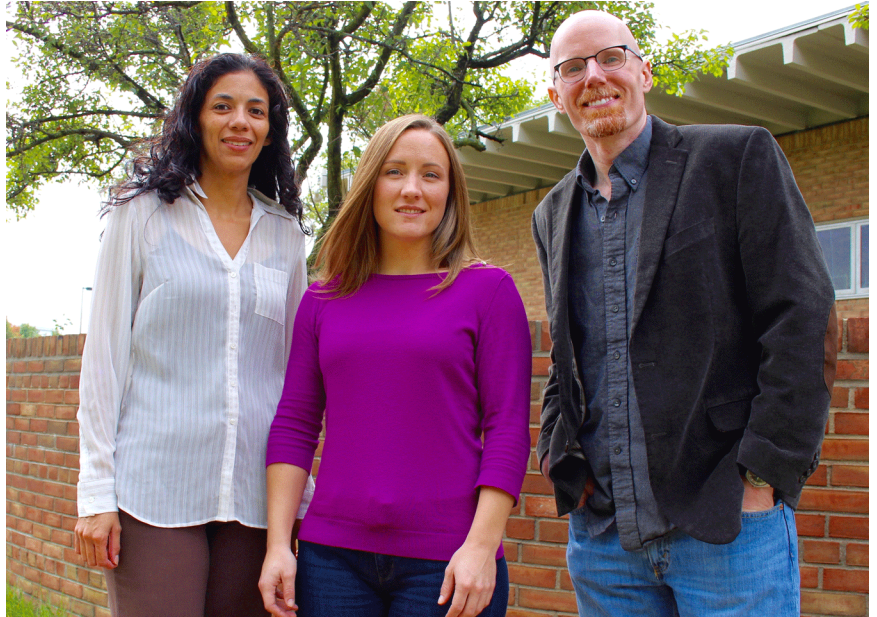
Oakland University to promote STEM-related education, careers with \$5 million NSF grant

Oakland University is among seven institutions selected by the **National Science Foundation** to receive \$5 million in grant funds over the next five years as part of a collaborative research project designed to encourage low-income students to pursue degrees and careers in science, technology, engineering and mathematics (STEM) related fields.

“The idea is that a lot of people who have financial hardships come from environments in which education has not been a primary goal, and they don’t have access to educational resources because they live in impoverished areas,” said **Martha Escobar**, Ph.D., associate professor of psychology at Oakland University.

“This is a program that the National Science Foundation has in place to try to alleviate some of the financial hardship and to investigate some of the things we can do to improve retention of these low-income, but academically talented, students.”

Escobar will serve as the principal investigator for Oakland University on the project, entitled “**Making to Advance Knowledge, Excellence and Recognition in STEM (MAKERS)**,” along with Associate Professor of Psychology **Virgil Zeigler-Hill** and Assistant Professor of Psychology **Melissa McDonald**, who will serve as co-principal investigators.



Associate Professor Martha Escobar (left) will serve as the principal investigator for Oakland University on a collaborative research project designed to encourage low income students to pursue degrees and careers STEM-related fields. Associate Professor of Psychology Virgil Zeigler-Hill (right) and Assistant Professor of Psychology Melissa McDonald (center), will serve as co-principal investigators.

“We’re in the initial stage of the project, which is primarily focused on Alabama,” Escobar said. “We’re purposely staying in the ‘Black Belt’ region of the state because of the geographic and socio-cultural composition there.”

According to the NSF, Tuskegee University will lead a team of Alabama-based institutions, including Auburn University, Alabama A&M University, Auburn University Montgomery, Southern Union State Junior College and Lawson State Community College to implement the project, with support from Oakland University.

“At OU, we will have a managing role and a research role,” Escobar said. “With every intervention that we do, we’re going to provide evidence of whether or not it works and try to find some of the reasons why it works.”

“Our goal will be to retain these students, to make sure that they stay on the path to graduation, and to make sure they graduate within four years.”

Over the course of the five-year period, the MAKERS project is expected to provide scholarships to up to 158 students majoring in biological, physical, mathematical, geological, and computer and information sciences; engineering; and associated technology areas.

“Most of the grant funds have already been earmarked for scholarships,” Escobar said. “The students will get a stipend to help cover their tuition costs. We’re also going to cover the cost of activities such as conference presentations and making product prototypes throughout five years of the program.”

As part of the program, the students will be asked to identify and investigate problems affecting their local communities and apply their STEM knowledge to “make” a product that has the potential to solve these problems.

“Our goal is to have the students work on these projects and apply the knowledge they have in a way that prepares them for joining the STEM workforce,” Escobar said.

That workforce, Escobar said, is currently facing a shortage of people with experience in STEM-related fields.

“We’re just not producing enough people with backgrounds in STEM, and unfortunately when we look at attrition rates, STEM is at the top,” she said. “So the question is, what can we do to prevent it? Is it just an academic thing, a social thing, a motivational thing? That’s what we’re trying to find out.”