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OU math and science programs target girls, minority students

By **Katie Land**, news editor

Oakland University's Department of Pre-College Programs is gearing up to offer the 2010 sessions of the Detroit Area Pre-College Engineering Program (DAPCEP) and the sub-program Promoting Underrepresented Girls Involvement in Research, Science, and Energy (PURSE).

DAPCEP offers intensive computer, technology, science, math and engineering training to encourage interest in those fields. Students focus on hands-on projects in work environments, as well as classroom-based curriculum activities.

"I think DAPCEP has an impact on students with a STEM (Science, Technology, Engineering and Math) focus," said Reginald McCloud, director of Oakland's Pre-College Programs. "It is quite beneficial to those students by helping them transition into college with strong skills already in place."

The program also works to increase the number of historically under-represented minority students such as African-Americans, Latinos and Native Americans. More than 4,200 students in grades K-12 participate in the DAPCEP program through Oakland and other partner universities.

This year, DAPCEP is offering three distinct courses available from 9 a.m. to noon on Saturdays running from February 27 to April 3.

"Rockets, Rainbows & Motors" will explore physics experiments and projects relating to motion, light, and electricity. "Learn Math the Fun Way" teaches basic math concepts in an interactive way, targeting numbers and operations, algebraic equations, geometry, measurements and data analysis. "Electrical and Computer Engineering" provides an introduction to the field of analog and digital electronic circuits through lectures and hands on laboratory experimentation.

The OU PURSE program welcomes 60 high school girls in ninth-11th grade to participate in project-based, out-of-school science and engineering activities that teach concepts related to the production and storage of energy.

Designed to ignite and sustain girls' interest in the Renewable Energy and Energy Efficiency (RE&EE) industries, this project includes work on fuel cells, batteries, wind turbines, and solar and nuclear power.

"PURSE is an outstanding program that really opens a world of opportunity for 120 girls each year," McCloud said. "This program gives high school girls a better chance of being successful by providing them with a solid foundation of STEM."

This semester's course, "Fossil Fuels and Petroleum," will explore the scientific principles that enable combustion and explore the chemical properties of fossil fuels that make them such an important part of the scientific world.

For more information about the Oakland's pre-college programs, visit oakland.edu/precollege.

SUMMARY

The DAPCEP and PURSE programs offer intensive computer, technology, science, math and engineering training to stimulate interest in those fields.

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