

CHANGE LIVES

MILLIGAN ENGINEERING

SUMMER UPDATES.2016

FIRST CLASS

Our inaugural class of 25 engineering students started classes Aug. 17! They jumped into general physics, calculus, chemistry, and general education classes. They also are taking *Engineering from a Christian Worldview*, which is unique to Milligan and helps them learn about the field and vocation of engineering and consider the Christian perspectives on the purpose, integrity, discernment, service, and value of the field and vocation of engineering.

Among the first class, we're pleased to have students such as **Bo Pless, a Niswonger Scholar and Jeanes Honors Scholar from Elizabethton, Tennessee**. Bo was talking to big name engineering programs and ultimately decided to be part of Milligan's inaugural engineering class. Here's why:

Of all the engineering programs I researched, Milligan is different in its focus. You get the calculus and strong technical preparation but the focus is on solving problems and helping people.

I will be pursuing a life-long passion in a place that teaches me not only how to be a successful engineer, but also how to be a strong man of faith. Milligan's program is designed for those who want to change the world, and that is my goal.

At Milligan, I'm going to learn directly from the best. Dr. Harrell has written textbooks and curriculum used by Virginia Tech and the U.S. Department of Energy. He's the lead technical consultant for the United Nations and companies all over the world. He's amazing. I'm excited about the caliber of the faculty and their focus on teaching and mentoring.



FACULTY

Our latest hire is **Dr. Jeffrey Giesey**, who is currently associate dean at the Russ College of Engineering and Technology at Ohio University. He will teach electrical engineering at Milligan starting in fall 2017. In addition to an extensive background in electrical engineering and bioengineering, he was a Fulbright Fellow in 2001 and has received numerous awards and prestigious grants. He holds a bachelor's and master's in electrical engineering from Michigan State University and a doctorate in bioengineering from the University of Michigan. In addition to his broad classroom and administrative experience, Dr. Giesey also has a deep commitment to integrating his Christian faith into his teaching, which is a distinguishing principle of Milligan.



INDUSTRY SUPPORT

In June, **Eastman** Foundation made a \$250,000 commitment to Milligan's engineering program. The Eastman name will be attached to the mechanical engineering design lab. Eastman has been very supportive in the development and launching of Milligan's engineering program.

David Golden, Eastman's senior vice president and chief legal and sustainability officer, said he applauds Milligan for designing an approach to engineering education that incorporates various disciplines of learning "in a way that will produce problem solvers, innovators, and thinkers with expertise in their particular field of engineering."

Senior vice president, chief manufacturing, supply chain, and engineering officer Mark Cox said he has been impressed with the program's curriculum, new facilities, and the faculty being assembled to lead and instruct students. "Milligan produces service-minded scholars who also make quality employees," said Cox.

TRAINING LOCAL HIGH SCHOOL STEM TEACHERS

When Tyler Chambers pulled the pin out, the tension in the wooden arm released and the large, homemade catapult fired, rocketing a tennis ball into the air and down the steep hill. The crowd cheered, giddy from the result.

But this wasn't a summer camp for kids.

Chambers, a chemistry and physics teacher at Cloudland High School, joined 29 other area educators in June at Milligan's new engineering facilities located in the B.D. Phillips Building for the college's fourth Improving Teacher Quality (ITQ) Grant Program. This year, the program provided a week of **free training to teachers in how to better engage students in the STEM (science, technology, engineering and math) disciplines.** Other activities and lessons included water rockets, water flow measurement, and hydroelectric power.

"Projects like these help us get students engaged," Milligan's Director of Engineering Programs Dr. Greg Harrell told the teachers as he demonstrated the catapult built from scratch. "We're outside, we're making noise. This is an energizing act for students. Not only does it demonstrate engineering design and

math skills, but it's a great ice breaker for students and helps them exchange ideas. It lets all range of students participate and learn."

Earlier that morning, the teachers also worked on building a much simpler and smaller version of the catapult out of ice cream sticks and rubber bands.

Jeremy McLaughlin, a physics and astronomy teacher at Sullivan Central High School in Blountville, Tennessee, said activities like these could be great for his classroom because they help students understand core scientific principles in a way that keeps them engaged. At one point, when the outdoor catapult fell off its brace, McLaughlin added another important engineering lesson from the project.

"When something in the machine's design doesn't work, it teaches you how to roll with it and adapt," said McLaughlin. "Science is about adapting to what you see."

See more pictures at www.facebook.com/milligancollege and look for the ITQ post on June 20.



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