

Department of Physics & Astronomy

PHYSICS NEWS FLASH

Exceptional High School Students Experience UT Physics

June 18, 2007

By Serena Dai

For five weeks, the brightest high school science students from Tennessee gather at the university for Governor's School for the Sciences (GSS).

The state covers the costs for this summer program, and about 100 students get to experience a taste of what college life might be like. In the sciences, each student is required to take Logic of Science and a class of their choice from chemistry, math, biology or physics.

Dr. Marianne Breinig teaches Physics 240 (Modern Physics) for GSS. This year is her third year in the program, and she plans to teach at least one more year.

"[The best part] is the enthusiastic students that really enjoy science," Breinig said. "We want to encourage students with aptitude to pursue a career."

Breinig essentially treats these high school students as she treats her college students, only at GSS, a semester-long class is fit into five weeks. The rigorous academia starts off with basic quantum mechanics physics and progresses into different applications of the knowledge.

"We will sometimes even discuss problems in physics that aren't solved yet," said Breinig.

She invites professors from the department to be guest speakers every year so the students can hear how the physics in class relates to modern research.

"[Last year], they would learn about elementary particles, and Professor (Iouri) Kamyckov came in to speak about what is still unknown [about them]," Breinig said.

The class is held in the Nielsen Physics Building, and each student actively uses university technology in the lessons, including Pascal's Data Studio. The curriculum is rigorous, but students earn college credit if they do well.

"You see the students getting tired after five weeks," Breinig said. "Most students like the science, though."

GSS 2007 began June 11 and ends July 13.