

Tulane BME Hosts Workshops for Local K-12 Students

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A young student participant in a GiST BME workshop experiences the human body in Virtual Reality. Photo by Paula Burch-Celentano.



BME graduate students Rachel Tabor & Ashley Martier and Prof. Dylan A. Lucia teach local K-12 students about anatomy. Photo by Paula Burch-Celentano.

As part of the School of Science and Engineering's K-12 Outreach, BME affiliates have been regularly participating in Girls in STEM at Tulane (GiST) and Boys at Tulane in STEM (BATS). These programs are hosted each semester and invite local 5-7th graders to Tulane's campus to experience a day of scientific exploration and discovery.

Undergraduate students in SSE volunteer for the programs as check-in activity hosts or group leaders. Group leaders work as a small team of 2-3 interdisciplinary Tulane students to lead their group of visiting boys or girls around campus and take them to their assigned workshops. These workshops are designed and hosted by faculty members and graduate students from differing departments across the School of Science and Engineering. The workshops and other activities that the visiting children get to experience are designed to encourage young students to get involved in STEM and develop a passion for STEM fields early in their education. Another key goal of these exciting days is to show these young future scientists how collaborative and welcoming the sciences are at Tulane—everyone is working together and can be a leader, no matter their gender, age, race, or background.

GiST occurred in October 2022, and two different BME workshops were hosted for the visiting students. The first workshop, Tissue Engineering and Design, was hosted by graduate students Shelby White & Christopher Sherman. In this workshop, students were introduced to the concepts of engineering design principles and the societal importance that tissue engineering holds. Another workshop, Exploring the Human Body in VR, was hosted by Professor Dylan A. Lucia and graduate students Rachel Tabor & Ashley Martier. In this workshop, the students got to experience virtual reality (some for the very first time!) and learn more about the body. They were able to “walk” through the heart’s chambers and explore different structures, such as the skeletal and vascular systems; additionally, the students compared the bones they saw in VR to real human bones.

During BATS in March 2023, Exploring the Human Body in VR made a comeback. Additionally, Dr. Mark Mondrinos; graduate students Elisabet Olsen, Wills Kpeli, & Omar Ahmed; and undergraduate student Jared Fink hosted the Human Organs workshop, in which the visitors got to learn about and experience building miniature human organ equivalents known as “organ chips.”

By connecting these young students with a diverse set of role models who can open their eyes to the possibilities in STEM, over 150 local students and nearly 30 of their teachers were exposed to a varied range of scientific topics.

For more information, please visit the [Center for K-12 STEM Education’s website](#).