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SMU Joins National Academy of Engineering Grand Challenges Scholars Program to Prepare the Next Generation to Solve Society's Grand Challenges

DALLAS (SMU)—SMU has become the first private university in Texas to adopt the National Academy of Engineering (NAE) Grand Challenges Scholars Program (GCSP). This combined curricular and extra-curricular program is designed to prepare students to become the next generation that solves the grand challenges facing society.

The SMU GCSP will be housed in the Hart Center for Engineering Leadership within the [Lyle School of Engineering](#), which provides leadership and professional development training for engineering students. GCSP students must fulfill five key competencies to be designated as GCSP scholars, including: talent through mentored research and creative experience; multidisciplinary teamwork practice; viable business/entrepreneurship skills; multicultural awareness; and social consciousness.

“We are proud to be joining the Grand Challenges Scholars Program at SMU,” said Bruce Gnade, executive director of the Hart Center for Engineering Leadership. “Many of our students across campus are already engaged in the program’s core competencies, and several faculty members are involved in extensive research directly related to GCS, such as providing mentoring and infrastructure for the students to carry out their research projects, so it was a natural fit for us to pursue involvement in this program.”

The GCSP is an outcomes-based program that provides flexibility to institutions on the best ways of offering appropriate and relevant experiences to students. In order for this movement to take root and thrive, it has to be global and engage a truly diverse group of students. This year’s inaugural cohort includes 13 scholars from Lyle and Dedman College:

- Sienna Dugan, Junior, Health and Society
- Gabrielle Gonzales, Junior, Electrical Engineering with Biomedical Specialization
- Cassie Hammond, First Year, Mechanical Engineering
- Ceydan Kaya, Junior, Management Science & Math with Operations Research Specialization
- Joshua Lauer, Junior, Computer Science
- Jonathan Lindboom, Sophomore, Math & Finance
- Carson Little, First Year, Mechanical Engineering & Spanish
- Micah Oxner, Junior, Mechanical Engineering with Biomedical Specialization
- Michael Rainey, Sophomore, Mechanical Engineering
- Michael Rollins, Junior, Civil Engineering
- Taylor Slaton, Junior, Computer Engineering
- Morgan VandenBerg, First Year, Computer Engineering
- Eric Zhang, First Year, Computer Science

There are 14 Grand Challenges defined by the NAE, and SMU GCSP scholars will utilize relevant, ground-breaking research expertise to solve them. Areas of concentration include several health-related challenges, such as: providing access to clean water, health informatics, reverse engineering the brain, and engineering better medicines. Other research interests look to advance personalized learning, engineer tools of scientific discovery, enhance virtual reality, restore and improve urban infrastructure and secure cyberspace.

About the Bobby B. Lyle School of Engineering

SMU's Bobby B. Lyle School of Engineering, founded in 1925, is one of the oldest engineering schools in the Southwest. The school offers eight undergraduate and 29 graduate programs, including master's and doctoral degrees, through the departments of Civil and Environmental Engineering; Computer Science and Engineering; Electrical Engineering; Engineering Management, Information and Systems; and Mechanical Engineering. Lyle students participate in programs in the unique Deason Innovation Gym, providing the tools and space to work on immersion design projects and competitions to accelerate leadership development and the framework for innovation; the Hart Center for Engineering Leadership, helping students develop nontechnical skills to prepare them for leadership in diverse technical fields; the Caruth Institute for Engineering Education, developing new methodologies for incorporating engineering education into K-12 schools; and the Hunter and Stephanie Hunt Institute for Engineering and Humanity, combining technological innovation with business expertise to address global poverty.

About the National Academy of Engineering

The mission of the NAE is to advance the well-being of the nation by promoting a vibrant engineering profession and by marshaling the expertise and insights of eminent engineers to provide independent advice to the federal government on matters involving engineering and technology. The NAE is part of the National Academies of Sciences, Engineering, and Medicine, an independent, nonprofit organization chartered by Congress to provide objective analysis and advice to the nation on matters of science, technology, and health.