CULLEN COLLEGE ANNOUNCES TWO WINNERS OF INAUGURAL BROOKSHIRE TEACHING EXCELLENCE AWARDS

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The late William A. Brookshire—a UH chemical engineering alumnus—understood firsthand the impact that dedicated teachers can have on students' lives. Raised without means, Brookshire often credited his professors at the Cullen College of Engineering for pushing and inspiring him to complete his degree.

Years later, Brookshire found a way to give back. He donated funds to the Cullen College to create the William A. Brookshire Teaching Excellence Award Endowment to honor engineering faculty who demonstrate an unwavering commitment to exemplifying the highest levels of teaching excellence inside the classroom.

On May 1, Cullen College presented the first Brookshire Teaching Excellence Awards to two engineering faculty who make a difference in their students' lives?Christiana Chang, instructional assistant professor of mechanical engineering, and Len Trombetta, associate professor of electrical and computer engineering.

Christiana Chang

One of the students who sent in a letter recommending Chang for the award credited her for his career. He had just failed his first mechanical engineering exam when he approached Chang for advice on whether he should continue with the course or drop it.

She responded with tutorials, study tips and advice about using available resources better.

?With her help, motivation and influence, I passed the class and made an A on the final which led me to believe that I can be a mechanical engineer,? he wrote.

Chang designs 'kitchen sink' quizzes from scratch, combining as many exam concepts as she can into each problem to challenge her students and help them build a strong knowledge base. She also creates hands-on design workshops to help students learn coding and instrumentation. Her open-door policy and office hours are resources available to any student needing help—whether it's clarification of a confusing concept, career advice or tips for more effective study habits.

Her passion for teaching has netted Chang several other awards. She's won the Cullen College of Engineering Outstanding Lecturer Award for 2014-15, the Student's Choice Professor of the Year Award in 2015 from UH's American Society of Mechanical Engineers (ASME) student chapter, and a UH Teaching Excellence Award in the Instructor/Clinical category for 2017-2018.

While Chang is grateful for her awards, she is even more grateful that she's able to help students discover their own potential.

?UH students can achieve much more than they realize?my job, both as an instructor and as a faculty advisor, is to help them realize how much they can achieve,? said Chang, who is herself a UH engineering alumna. ?I want students to know they can take on any challenge with their UH engineering degree.?

Len Trombetta

Len Trombetta, who started teaching at the Cullen College in 1986, has the reputation of being a rigorous and challenging professor who genuinely cares about his students.

?I try to treat people in my class as colleagues as much as students. In developing lectures, I try to reduce complex ideas to their roots,? Trombetta wrote in his personal statement for the Brookshire award. ?Once in the classroom, I try to put myself in the place of students who have never seen the material, and to get them to think
about those roots.

He is open to trying new things for more effective teaching. A big proponent of hands-on, project-based learning, Trombetta has helped introduce those elements to several courses and made engineering “real” to students. Trombetta also overhauled the way the ECE 2100 Circuits Lab class was taught. Instead of bringing in electronic workbench tools into a traditional classroom and lecture format, he decided to take the students into the laboratory. There, they work on the equipment while simultaneously viewing lectures and demonstrations by the instructor.

He has directed numerous M.S. theses and Ph.D dissertations, as well as undergraduate research and senior thesis projects.

Over the years, Trombetta’s dedication has earned him several other teaching awards. He won the University of Houston’s W. T. Kittinger Teaching Excellence Award in 2017, the Cullen College of Engineering Career Teaching Award in 2010, and the College of Engineering Outstanding Teacher Award in 1991, 1994, 2001 and 2008. As well as some student recognition: The IEEE (Institute of Electrical and Electronics Engineers) student chapter awarded him its Outstanding Teacher Award in 2009 and Eta Kappa Nu’s Outstanding Teacher Award in 1992.

“Students actively seek out his sections because the word has passed on from one generation of students to the next?that if you take his class, you will learn the material and be well prepared for the next courses in the sequence,” wrote Fritz Claydon, director of the Honors Engineering Program, in his recommendation letter.

Joseph W. Tedesco, Elizabeth D. Rockwell Dean and Professor of the Cullen College of Engineering, both Chang and Trombetta are well-deserving of the Brookshire award.

“Dr. Brookshire intended for this award to recognize engineering professors who go above and beyond standard classroom lessons to shape and inspire the next generation of global engineers,” said Tedesco. “Christian and Len are two of the most dedicated and innovative educators I have ever had the pleasure of knowing, and I am so pleased to see them recognized as the inaugural winners of Dr. Brookshire’s award.”

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