

USU Students Take Third at National Wastewater Design Challenge | College of Engineering

10/08/2019

Oct. 8, 2019 — Utah State University students grabbed another national victory at a wastewater design challenge last month in Chicago.

The team of undergraduates from the Department of Civil and Environmental Engineering took third place at the 2019 Wastewater Design Competition. The event takes place during the Water Environment Federation's annual meeting and expo, known as WEFTEC. Nine Aggies — Amy Carmellini, Jessica Cooper, Avery Holyoak, Kailey Jorgensen, Todd Keniry, Jade Snyder, Madeline Tennant, Nikki Vause and Andrew Walker — competed in the event against 13 other schools. The students, led by faculty advisor Ryan Dupont, are members of the student chapter of the Water Environment Association of Utah.

The win is USU's fourth national victory at WEFTEC. Students placed second in 2018, 2014 and 2011.



Left to right: Andrew Walker, Madeline Tennant, Jade Echard, Nikki Vause, Amy Carmellini and Jessica Cooper took third place at the WEFTEC Student Design Competition.

The purpose of the wastewater design challenge is to encourage engineering students to create innovative solutions for water resource recovery facilities. Topics include hydraulic capacity design, upgrades to existing treatment systems and biosolids management.

The team's winning design focused on improving wastewater treatment operations at Utah's North Davis

Sewer District. Team member Amy Carmellini says the design addresses nutrient levels in wastewater discharge.

"Our team designed a solution that reduces the levels of phosphorus and nitrogen discharged into the Great Salt Lake," she said. "Excessive nutrients can cause algal blooms and can harm aquatic life."

Carmellini says her team was successful because of the preparation they put into their presentation.

"We put so much time into this, so much practice, and we got feedback from a lot of professors before we left for Chicago," she added. "We were really prepared, and we had a very motivated team. They paid a lot of attention to detail."

In addition to the design competition, students toured WEFTEC's massive industry expo, attended technical sessions and networked with future employers at the career fair.

###

Contact: Dr. Ryan Dupont, [435-797-3227](tel:435-797-3227), ryan.dupont@usu.edu

Writer: Matt Jensen, [435-797-8170](tel:435-797-8170), matthew.jensen@usu.edu