

HYPER-activity

The aerospace engineering program was sent to new heights with the launch of a new Research Experience for Undergraduates, sponsored by the National Science Foundation and the U.S. Department of Defense.

The Advanced Technologies for Hypersonic Propulsive, Energetic and Reusable Platforms program, better known as HYPER, brings together 11 students from across the country for a unique summer event.

Each student pairs up with a faculty member from the Center for Advanced Turbomachinery and Energy Research and completes a research project in their lab. At the end of the 10-week program, the students present their research to the department faculty, graduate students and staff from the Office of Research and Commercialization. Here's what some of the students had to say about their experience:



Daniel Benitez

AEROSPACE ENGINEERING
NORTH CAROLINA STATE UNIVERSITY

"I just got into research not too long ago, and I eventually want to get my Ph.D., so I feel like this is a step toward that. Especially coming down to UCF, it's a different experience as opposed to doing research at my own school – I can do that, but I'd much rather have connections somewhere else where I'm able to look into a grad school and see if that's something that I would like to do some time in the future."



Alitzel Yepiz

MECHANICAL ENGINEERING
WASHINGTON UNIVERSITY-ST. LOUIS

"Before this REU, I had zero, zero research experience. And the biggest piece of advice that I got that I found to be the most valuable was 'ask questions.' I know in the beginning I felt I was asking stupid questions or the answers were simple. But ask those questions because everyone else started where you are at and they will meet you where you are at, and they want you to understand what you are doing and love what you are doing. And I think I've had a wonderful experience because I wasn't afraid to ask questions."

A Strong Mentor

When Professor Ali Gordon needed a graduate assistant for the students in his Research Experience for Undergraduates, there was only one choice – aerospace engineering alumnus Robert Burke.



Dana Mikkelsen

AEROSPACE ENGINEERING
UNIVERSITY OF CENTRAL FLORIDA

“I was interested in participating in REU HYPER because it was an opportunity to do research that was different from the research that I had already been doing here at UCF.”



Robert Burke

AEROSPACE ENGINEERING
UNIVERSITY OF CENTRAL FLORIDA

Gordon met Burke through the UCF STEM Transfers' Opportunities for Growth program, better known as STRONG. Burke served as a peer mentor for a group of students from Central Florida who recently transferred to UCF, and Gordon was a faculty advisor. Once he saw how capable and talented Burke was, Gordon knew he would be the perfect student mentor for his new REU.

Burke served as the right-hand man for Gordon and REU co-leader Jeffrey Kauffman, and assisted them both with the launch of the program. But the best part for Burke was working with the 11 students who came as far as New York and

New Mexico to participate.

“It’s great being able to hear their stories and see other engineers outside of Florida,” Burke said. “You don’t realize there are differences in engineers until you actually meet with them. It opened up my view about engineering in general.”

The students also welcomed the chance to have a mentor who recently journeyed through an undergraduate program.

“It’s definitely really refreshing to have someone really close to our age group,” said Dyllian Powell, a mechanical

engineering student from the New Mexico Institute of Mining and Technology. “Having someone who knows what we’re going through has really helped with program direction as well as the social communication between everybody.”

The REU was a rewarding experience for Burke, who plans to continue his aerospace engineering education at UCF.

“In the end, what we do in engineering is for the people,” Burke said. “Having these experiences and chances to build capabilities as a mentor has probably helped me more than them.”

To learn more about the HYPHER REU, visit cater.cecs.ucf.edu/HYPHER