

A Graduate Degree Made the Difference

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How USU Faculty Prepare Engineering Leaders

Professors Matt Harris and Greg Droge have very different engineering backgrounds, but their research interests often cross paths. Harris is an aerospace engineer who studies spacecraft controls and trajectory optimization. His work leads to a smoother ride for those working in space. Droge is an electrical engineer who develops solutions for complex control systems that support national defense and satellite optimization.



Professors Matt Harris, left, and Greg Droge mentor master's and Ph.D. students who go on to become leaders in their fields.

Both are passionate about teaching and research. Earlier this year, Droge was named outstanding researcher in the college. Harris was named outstanding graduate mentor in 2023. Their common goal is to prepare highly qualified graduates for engineering leadership roles. Droge emphasizes the importance of clearly defined research goals. “As a mentor, my goal is to help students define their direction and effectively communicate their results,” said Droge.

Harris says he holds his graduate students to the highest standards of scholarship — in classes and research—so they are prepared to excel professionally. “Through teaching opportunities, technical presentations, and white board discussions, our students graduate ready to contribute in dynamic situations,” said Harris.

Alumni Perspectives



Anthony Griffith
Technical Solutions Engineer at Epic Systems
BS '22 Mechanical Engineering; MS '24 Mechanical Engineering

"Throughout out my education at USU, I developed a deep appreciation for the fulfillment that learning provides. This perspective has fundamentally altered my approach to work in that understanding takes importance over immediate results. I believe this lays a strong foundation for approaching relevant problems or tasks and employing effective solutions."



Skylar Cox
Mission Systems Engineer–Constellations at Viasat Inc.
BS+MS '05 Mechanical Engineering with Aerospace Emphasis; PhD '23 Electrical Engineering

"The research I was a part of at USU and with Dr. Droge has been fundamentally important to my career. The research focused on developing coordinated operations autonomously among large groups of systems. In our case, low earth orbit satellites. That research provided me with unique insight and relevant experience in addressing some of the most challenging aspects of space flight in the industry. Specifically, addressing problems faced by my current employer, Viasat, as well as government agencies, including the Space Development Agency and NASA. I have assumed a leadership role on several new initiatives and proposals within Viasat, and that is a direct result of the time spent researching this interesting topic at USU."



Sheril Kunhippurayil
Senior Design Engineer at Torc Robotics
PhD '21 Aerospace Engineering

"Pursuing a PhD in aerospace engineering from USU has been one of the best decisions I've made in my life. Being able to work with some of the brilliant minds on cutting-edge technology and state-of-the-art facilities is a dream come true for any academic researcher. I also had the unparalleled opportunity to work on a NASA-funded research project as part of my PhD. This holistic experience has been invaluable, made me industry-ready, and has lifted off my career in the direction that I wished for. This journey wouldn't have been possible without USU, especially my PhD advisor — Dr. Matt Harris, my beloved professors, and my dear friends at USU."

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