

MECHANICS OF MATERIALS HONORS

Breaking Ground Initiative

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The Breaking Ground Initiative, implemented in the Mechanics of Materials Honors course, was designed to give students an opportunity to apply their knowledge of mechanics to a real world problem, add to the existing body of knowledge, and help the community. As honors students who experienced the Breaking Ground Initiative, we signed up for the course for several reasons. Initially, we expected to have more face time with the professor, receive a deeper look into mechanics of materials applications and theories, and have a reserved time that would encourage us to pursue additional practice in our regular subject material.

Upon entering the class, we found that our professor had prepared nearly a dozen guest speakers, many of whom could offer internship opportunities later in our college careers. Additionally, our professor planned field trips to meet with real-world engineers and discuss how their educations influenced their current careers. Finally, our experience was concluded with a team project. Each team, composed of 3-4 students, created a thesis or product outcome requested by one of the guest speakers. Each team used their newly-acquired mechanics of materials concepts, delved into detail beyond what was introduced in class, consulted the professor who acted as a mentor, developed a final product, and created formal documentation of the research experience in the forms of a paper and several PowerPoint presentations.



The Breaking Ground Initiative is an excellent experience for proactive students who are determined to gain a deeper understanding of their subject, have more one-on-one interaction with the professor, and practice the soft skills integral to being a successful engineer. One of the most important things we, as students, learned from the Breaking Ground Initiative was that the ultimate goal of engineering is to better the world around us, starting with our local community.

