ASU is committed to providing students with community-based experiences that permit them to contribute meaningfully to their communities, while also preparing them with the career-spanning skills they need to be effective as leaders and problem-solvers of 21st-century challenges.

Lake Havasu campus

As a former flight paramedic and veteran Green Beret, biology and environmental sciences senior at ASU at Lake Havasu, Dominic Troffer, says he has always been the type of person who just “goes in and solves the problem.”

Like many students at ASU’s Lake Havasu location, Dominic was exposed to experiential and community-based learning opportunities early on. This gave him a chance to understand local challenges through the lens of his interdisciplinary undergraduate coursework, while also lending his problem-solving mindset to issues in his own community.

Thanks to a course project with the city’s water conservation manager, Dominic discovered complex clean water supply challenges in Lake Havasu City and other Arizona communities, such as bacteria-laden water pipes and a quagga mussel infestation in the lake. By exploring different surfaces found in nature, he developed materials using the natural microgeometry of shark skin, which is known for its antibacterial properties.

With support from the Draper/ASU Entrepreneurial Program, Dominic has expanded his knowledge about product development and explored how his innovation could be used to address both his community’s water problem and also other applications, such as food and beverage packaging. He hopes to keep his venture anchored in the Lake Havasu community, a testament to the town’s return on investment for supporting and guiding ASU student learning.