For Pierre D. Mourad, associate professor in both the UW Bothell School of Science, Technology, Engineering and Mathematics and UW Seattle Department of Neurological Surgery, research resides in the interface between physics and medicine. Through innovative use of ultrasound technology, his work addresses problems involving the human central and peripheral nervous systems. “I’m working on new ways to image the structure and function of damaged brains as compared to normal brains,” he says. “Some of my work requires watching the brain perform tasks, and that can include static images of structure and dynamic images of function. And some of my work actually includes stimulating the brain or the periphery and looking for changes in brain function.”

Mourad joined the UW Bothell faculty last fall, representing a unique collaboration between both campuses. At UW Bothell, he is currently working to create the Alliance for Medical Device Innovation, which will mimic on a much larger scale aspects of his existing research lab at UW Seattle. For Mourad, the goal is not only to provide a rich and rewarding educational experience for students, but also to contribute new tools doctors can use to treat patients. “It is important to me that I make the fruits of this labor available to the public, which typically means commercializing what I do to get devices in the hands of doctors,” he says. “What I do with my teaching, what I do with my research, is to try to move things from bench to bedside.”

Students have always played an important role in Mourad’s research endeavors. “In my laboratory I have created a space for five to ten undergraduate researchers and a couple of engineers where we take ideas developed by me with industry and with medical doctors and try to move those ideas into proof of concept and then development of pre-commercialization activities,” he says. The team works together to try to create a product that doctors can use. “I’ve been doing that in my lab for years.”

The Alliance for Medical Device Innovation at UW Bothell will reside in Discovery Hall. Students from all disciplines are welcome to work with Mourad in the Alliance. In fact, he hopes that not only STEM and business students and faculty will participate, but also those working closely with the Digital Futures Lab as well as students and faculty from the School of Interdisciplinary Arts and Sciences.

Mourad is especially enthusiastic about the School of Interdisciplinary Arts and Sciences joining in. “I want people from the creative arts involved because I want us to work on projects that are beautiful and functional and compassionate as well as that which diagnose and treat illness,” he says. “It will be a better educational experience.”

Mourad also hopes that both new and experienced students will participate. “I want first-year students to come in and have seniors adopt them and start mentoring them,” he says. Mourad says it’s important for students to learn how to manage and track others. “That is one of those soft skills that is incredibly vital for anything, but includes science and engineering.”

He hopes to have the Alliance open in the fall and is working to secure funding. “I want to make this a place where a significant portion of the UW Bothell campus can come together for educational benefit and for the good of local community.”

By Stacey Schultz