Summer Undergraduate Research Fellowship (SURF) 2017 Testimonial

“GPS and Total Station Plane Survey of the Unexcavated 24BE2206 Site in the Big Hole Valley of Montana”, 
Liana Galayda (Civil Engineering), M. Masters, A. Choudhury

“My summer was full of sun, dirt, and pre-historic Native American artifacts and features. I participated in a GPS and Total Station plane survey of a previously unexcavated site in the Big Hole Valley of Montana. First, Professor Choudhury helped me to acquire the GPS coordinates of two points at the site, which we then plugged into the Total Station for later use in surveying. Acquiring the GPS coordinates required the use of OPUS (Online Positioning User Service), which was an entirely new experience for me. At the site, a grid was formed and labeled such that each point referenced the NW corner. This was a very simple and useful method of labeling, and I will likely use it for labeling survey points in the future. A team and I dug one meter units at the site to unearth artifacts and features, which were diligently recorded according to archaeological standards. I learned quickly that these standards involve paper documentation as well as photographic. Then, I used a Total Station to preserve the provenience of these items. However, on the last day, I did not verify that the batteries were in the case with the Total Station, therefore, none of the artifacts found that day were surveyed in. I learned two valuable lessons from this experience. First, always double-check that you have all necessary equipment before leaving for a remote site. Second, plotting the artifact locations from the Total Station is much easier and less time intensive than having to plot them manually. I learned a lot about archaeological methodology and paperwork, acquiring coordinates with GPS and OPUS, and different methods of surveying with the Total Station.”