



2017 Department of Biology Awards

JOSEPH E. GREAVES ENDOWED SCHOLARSHIP

Rachel Buck, Doctoral Candidate

I grew up in the great state of Texas in the Houston area. The house I lived in backed up to a wooded nature preserve which I loved to visit often – to exercise or to think and study. Because of this opportunity, I really learned to appreciate nature and became interested in learning more about the environment. I studied environmental science for my Bachelor's degree at Brigham Young University. During my first semester of college, I decided that I wanted to take advantage of mentored learning opportunities for undergraduate students. I was offered a job as a laboratory technician at the Environmental Analytical Lab on BYU campus. I took the opportunity and learned how to analyze soil, plant, and water samples for physical and chemical properties. I ended up working in the lab during all four years of my undergraduate program. This helped me to learn how to carefully follow standard operating procedures and discover the importance of quality control and attention to detail. I was also able to become involved with research projects, including a study about the use of ion exchange resin capsules to assess soil fertility. I was able to be an author on a study published in a peer reviewed journal. During my senior year, I received the Outstanding Senior in Crop, Soils, and Environmental Sciences award from the American Societies of Agronomy, Crop Science, and Soil Sciences. I also graduated *Magna Cum Laude* and was honored at graduation as the student with the highest GPA from my department. I have always worked hard to do the best I can in everything I do. My undergraduate research experiences helped me to realize that I really loved research, so I stayed at BYU and did a Master's Degree in environmental science as well. While working on my degree, I was managing the Environmental Analytical Laboratory. It was difficult to manage 20–28 hours a week of lab work on top of my research and coursework requirements. However, I was able to do that and maintain a 4.0 on my coursework. I stayed organized and on top of things and was able to graduate in three semesters. I then worked at BYU for about three years managing the laboratory there. During that time my husband and I had a little boy. My son has made life completely different, but fun. It is challenging to be a mother and work or go to school, but in my mind it's worth it. Last year I felt a push to continue my education. I love learning and delving into research projects. I also have a passion for the environment, and I would like to do everything I can to really contribute to making the world a better place. I completed my first semester at USU as a graduate student in December 2016. I maintained a 4.0 GPA while working as a teaching assistant for the introductory biology lab and commuting from Utah County. The students in my biology sections gave me very positive reviews about my performance at the end of the semester. I have enjoyed all of my educational experiences so far, and look forward to many more.