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Research Opportunities Helped Nikole Roland '16 Achieve Her Goal

Nikole Roland '16 came to Gardner-Webb University with a specific goal in mind. In four years, she wanted to be accepted into Tokyo University's Graduate Program of Sustainability. Students in the program conduct research on how societies interact with the environment. When professors in the GWU Department of Natural Sciences learned about her dream, they worked to give her plenty of research experiences and support.

"The entire Chemistry department (Dr. Ben Brooks, Dr. Stefka Eddins, Dr. Venita Totten, and Troy Whisenant) made an influential impact on my educational journey within my major," shared Roland, a native of Hollywood, Fla. Brooks was especially helpful as Roland conducted her independent research project on para-aminobenzoic acid (PABA), a component of some sunscreens and a dietary supplement. Roland tested scientific techniques to find one that would separate PABA from other ingredients.

"I was able to test ideas and procedures out and appreciated failing many times, too. It was through the failures I began to understand even more than before," she described. "While working on the project, I had to redo a step around four times. Each time, I learned and implemented the strategy for the next attempt."

The professors encouraged her to become a chemistry teaching assistant and to apply for the Research Experience for Undergraduates program at The National High Magnetic Field Lab in Tallahassee, Fla., where GWU alumnus Dr. David Podgorski works as a research scientist. She was accepted into the summer program and conducted experiments on the largest marine oil spill in history at Deepwater Horizon, an oil rig in the Gulf of Mexico, on April 20, 2010. Her experience at the laboratory was a factor in her acceptance into the Tokyo program.

Nikole Roland, center, discusses plans for the fish pond in Haiti with Theresa McAnnar from Higher Quest Foundation and Richard Pieere, the group's translator. Higher Quest Foundation came to Gardner-Webb to ask for help in establishing the fish farm for the orphanage in Haiti.

Along with her studies in chemistry, Roland also explored other areas of interest at GWU. She and other students in Sigma Zeta, the National Mathematics and Science Honor Society, helped build a fish farm for an orphanage in Haiti. She was also among a group of students who formed a Japanese Club, and she ministered to prisoners through the GWU Prison Fellowship Ministry. “I believe God used Gardner-Webb to make me trust in Him more than I ever did before,” Roland assessed. “Gardner-Webb provided possibilities for me to step out of my comfort zones, either through religious classes that engaged me or through ministries like Prison Fellowship. I also had the support of people to help me go through the journey.”

As she begins the master’s program at Tokyo University, Roland’s immediate goal is to conduct research that can help people like the ones she met in Haiti, who have been affected by improper environmental management. “In five years, I would like to be finishing a doctorate and to begin working with either a non-profit, business for benefit, non-government organization, or government to implement more sustainable techniques, procedures, or plans in dealing with people and the environment,” Roland expounded. “I am so blessed to have been able to go to Gardner-Webb University. I grew there spiritually, intellectually, emotionally and socially.”