



Ashanti Johnson-Pyrtle (1970-Present)

Assistant Professor

**College of Marine Science, University of
South Florida**

"There are a lot of opportunities, and with continuous effort and perseverance [students] can be successful." Ashanti Pyrtle, 2006.

Overview

Dr. Ashanti Johnson is an assistant professor at the College of Marine Science. She has several funded projects: 2 aquatic geochemistry and 2 diversity related projects. She currently advise/co-advise eleven graduate students. In 2010, President Barak Obama honored Dr. Johnson with a Presidential Award for excellence in teaching.

This interview was conducted in 2010.

Early Life and Education

Ashanti Pyrtle has always been intrigued by the ocean. Despite being raised in inland Dallas, Texas, as one of Don Johnson and Vivian Williamson-Whitney's children, Pyrtle recalls being fascinated by Public Broadcasting Service environmental documentaries as a child. In high school, she volunteered at the Dallas Aquarium and would often visit the Dallas Museum of Natural History and Planetarium on her own. She was enrolled in talented and gifted programs throughout her primary education, and from third grade on, her independent school projects were always focused on some aspect of the ocean.

Pyrtle attended Texas A&M University-Galveston as an undergraduate. In 1990, after her freshman year, she was awarded an internship at Texas Instruments Inc. in the Polymer Characterization Laboratories, where she would continue to work during summer and winter breaks throughout her undergraduate and early graduate academic career. While working there, Pyrtle supervised interns and did analytical work to determine if there were any contaminants on electronic devices.

In 1993, she obtained a Bachelor of Science in marine science and began her doctoral work immediately thereafter. As she began her graduate studies, Pyrtle remained employed as a polymer chemist at Texas

Instruments. In 1994, she left the company to pursue her studies full time. Prior to completing her graduate education, Pyrtle gained additional industry experience while working as a geochemist in Exxon Production Research Company's Fundamental Geological Studies group.

Career

Pyrtle obtained her doctorate in chemical oceanography from Texas A&M University at College Station in 1999. Afterwards she went to work as a research scientist at the Georgia Institute of Technology, where her research focused on radiogeochemistry in the estuarine environment, specifically on radionuclide behavior and transport through river systems. She resigned that job in 2003 so that she and her husband could pursue offers for assistant professor positions at University of South Florida (USF), where she continues to teach and research today.

Pyrtle's courses at USF focus largely on aquatic radiogeochemistry and biogeochemical sensors. She also uses her courses to actively develop the next generation of scientists and scientific educators; her Science, Technology, Engineering, and Mathematics (STEM) professional development course helps graduate students prepare for scientific careers, and her Scientists in the Classroom course gives graduate students the opportunity to get teaching experience. In addition to teaching, Pyrtle also supervises graduate students, and conducts research examining manmade and naturally-occurring radionuclides.

Highlights

One of Pyrtle's most notable accomplishments outside the classroom has been her establishment of the highly-regarded [Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science](#) initiative (MS PHD'S®). The National Aeronautics and Space Administration (NASA) and National Science Foundation (NSF)-funded project targets students of color throughout the country with the purpose of increasing the participation of underrepresented minority students in Earth system science. Pyrtle is very proud of the program, noting that more than seventy-five students have participated since the program's inception.

Pyrtle is also involved in another NSF-funded initiative called The Florida-Georgia Louis Stokes Alliances for Minority Participation (LSAMP) NSF Bridge to the Doctorate Program, which provides two years of funding to graduate students who have received undergraduate educations at LSAMP institutions. Pyrtle says the NSF LSAMP aims to strengthen the scientific training of minority students as well as increase the number of underrepresented minority students who finish their baccalaureates in STEM fields. The program's long-term goal is to increase the number of underrepresented minority doctorates in STEM fields. The Florida-Georgia LSAMP Bridge to the Doctorate Program, launched in 2004, has provided two-year fellowships to thirty-eight students; this program is anticipated to provide fellowship opportunities for additional students for many years to come.

Importance of Mentoring to Career

Throughout her career, Pyrtle has been able to rely on the guidance of many mentors, including Dr. Thomas Windham, Dr. Frank Hall and Dr. Robert Duce. Dr. Windham directed the Significant

Opportunities in Atmospheric Research program (SOARS®) at the University Corporation for Atmospheric Research (UCAR) prior to assuming his current role as Senior Advisor for Science and Engineering Workforce at NSF. Windham has engaged in diversity initiatives for many years, and Pyrtle credits him with giving her a lot of support. “He offered important advice when I began my own initiative...and still gives me guidance to this day,” she says.

Another mentor is Frank Hall, formerly an associate professor at the University of New Orleans, and most recently a program officer for the Ocean Studies Board at The National Academies. When Pyrtle was a graduate student, Hall used his own funding to cover Pyrtle’s travel costs to attend her first international meeting so that she could do an oral presentation on her Arctic research. He has also helped her network with other scientists throughout the years. Another mentor is Robert Duce, who was dean of the College of Geosciences at Texas A&M University when she was a graduate student. According to Pyrtle, Duce is a scientist with an international reputation for research excellence and “is just a good person morally...he is a really good role model.” Duce mentored Pyrtle through some difficult periods, and encouraged her to remain in academia and to pursue her doctorate.

Mentoring Others

Helping students of color to achieve their goals at the undergraduate and graduate levels has been a career highlight for Pyrtle. Her desire to help them stems from her own experience of being one of the very few minorities in her field, something she notes as a career low point. Despite its current lack of diversity, Pyrtle refuses to leave the field she has loved since she was a child. She notes optimistically that the number of minority faculty and scientists is slowly increasing, particularly in chemical and biological oceanography. As a distinguished woman of color in her field, Pyrtle has received wide recognition for her work. Her profile has been featured in a variety of school textbooks and magazines, and has served on the NSF Advisory Committee for Environmental Research and Education.

Advice to Young Professionals

For minorities considering careers in the environmental field, Pyrtle has this advice: “There are a lot of opportunities, and with continuous effort and perseverance they [minorities] can be successful.”

For More Information

Professional Website: www.marine.usf.edu/faculty/ashanti-pyrtle.shtml