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## **MSCC Students, Faculty Benefit from Summer Experience with NASA**

When Mid-South Community College student Crystal Daniel received notification of acceptance into a National Aeronautics and Space Administration summer program, she almost declined the invitation. Ten weeks later, she was very glad she didn't.

“At first, I felt overwhelmed by the idea of going so far away from home,” she said. “I also felt that, as an educator in training, I had no place with the ‘geniuses’ at NASA. I actually almost rejected my acceptance into the program.”

But with encouragement from MSCC science instructor Grace Troutman, Daniel participated in the camp with fellow student Ina Brown and Mid-South instructors Dr. Azah Abanda (science) and Shermel Brown (mathematics).



“Ms. Troutman, my mentor and dear friend, offered wonderful advice and urged me to take the ‘once in a lifetime opportunity,’” Daniel said. “I was instantly swept up in a whirlwind of pure education and fun.”

“Every single day was filled with pure excitement at the prospect of working closely with brilliant people and conducting research and experiments. Dr. Abanda was crucial to my success; he was always supportive and encouraged free thinking and exploration during the research and experiments.”



Daniel worked with Dr. Abanda and Dr. Leslie Prufert-Bebout on a project entitled “The Potential Use of Diatoms for In-Situ Resource Extraction in Space.”

“Working on the diatom project was optimum for me, a biology lover,” Daniel said. “I was constantly in close contact with brilliant scientists and researchers in the Exobiology department, and I was able to collaborate with other interns from all over the world and learn about their various projects.”

“I ended the 10-week internship with a bounty of new knowledge about exobiology, algae in space, in-situ resource extraction, and NASA as a whole. I learned an extreme amount from everyone I was in contact with.”

Daniel, who graduated in spring 2013 with an Associate of Arts in Teaching degree from MSCC, said the experience was priceless.

“After NASA, I am a woman who has an even greater passion for science and the confidence to pursue anything,” she said. “I feel like the time I spent at NASA changed me for the better, and all my friends and family can see the good difference. I know that my experience ensures that I will be a better educator than I could have ever dreamed.”

Ina Brown, a 2012 Associate of Arts graduate of MSCC, worked with Dr. George Cooper and Shermel Brown on “Exploration of Sugar Derivatives in Carbonaceous Meteorites.”

“When I say the word ‘NASA,’ inspiration comes to mind,” Ina said. “My learning experience at the Ames Research Center marked the beginning of a never-ending story.”

“NASA has so much to offer, from the most innovative technology to the most inspiring minds. What I enjoyed most about my experience was the endless amount of education and people standing behind me helping me achieve the unthinkable.”

Dr. Abanda said the students distinguished themselves and represented the College well.

“Looking at the depth of their research, the quality of their research papers and posters, and their confidence at the center, it is clear to me that our students can compete nationally and internationally,” he said. “This speaks to the work we are doing as an institution in preparing them for success beyond the classroom.”

“The partnership and support from our NASA host scientists, Dr. George Cooper, Dr. Leslie Prufert-Bebout, and Dr. Brad Bebout, has been invaluable to the success of our CIPAIR (Curriculum Improvements Partnership Awards for Integration of Research) program. We continue to seek funding to enable us to offer similar opportunities to more of our students.”

MSCC, in partnership with Rust College, is participating in the NASA grant program that promotes research and curriculum development in aerospace-related disciplines.

“The partnership between NASA and CIPAIR helps to promote student advancement in the STEM (science, technology, engineering, and math) disciplines,”



Shermel Brown said. “The CIPAIR-NASA program has given our students and teachers an extraordinary opportunity to work side by side with NASA’s scientists, technologists, engineers, and mathematicians on the latest most progressive missions and research and development.”

“It has also given us an opportunity to collaborate with students, professors, and scientists from around the world. Working at NASA each summer inspires me to be a better teacher and to always be mindful to teach our students in a way that prepares them to be successful in any environment, discipline, and/or career. I am very proud to have had the opportunity to be a part of an amazing program that changes the lives of our students in a very positive and rewarding way.”

Designed to benefit minority institutions, NASA, and the nation, the CIPAIR grants focus on building, sustaining, and providing a skilled, knowledgeable, and diverse workforce to meet the agency and the country's emerging needs.

NASA, with input from scientists and educators from the academic community, private industry, and the National Science Foundation, awarded the CIPAIR grant to Rust and MSCC with a goal of strengthening STEM programs at the institutions.

Through the program, MSCC and Rust College are developing significant strength and expertise in chemistry and biology to compete for additional research grants, to develop new courses and/or update existing ones with NASA-related STEM materials, to expand the pipeline of students transitioning from MSCC to Rust College and other four-year institutions, and to establish a culture of students excited and pro-active in hands-on research activities.

For information on global and extraterrestrial learning opportunities at MSCC, visit the campus at 2000 West Broadway in West Memphis, call the Admissions Office at (870) 733-6728, email [admissions@midsouthcc.edu](mailto:admissions@midsouthcc.edu), or see the college’s website at [www.midsouthcc.edu](http://www.midsouthcc.edu).