Mesa Chamber of Commerce

Council on Undergraduate Research features MCC alumna and faculty

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MESA, Arizona – Sept. 17, 2018 - The writings of two Mesa Community College professors and an alumna appear in the Council on Undergraduate Research's book, Mentoring through Transitions: Voices on the Verge. The publication highlights individuals, programs and institutions succeeding in supporting students at transitional junctures such as when they move from a community college to a four-year institution.

MCC professor Niccole Villa Cerveny is a first-generation Hispanic female who received a degree in accounting but enrolled in graduate school five years later to pursue geoscience. Today she holds a Ph.D. in geography with an emphasis on geomorphology. She teaches first- and second-year, introductory level geoscience classes.

Cerveny values the importance of research experience for undergraduate students as early as possible.

"I think that students need more guidance within all aspects of their college experience," Cerveny said. "Consequently, every student in my classes conducts research. Not only does problem-based, active learning substantially benefit STEM students at any level, it also has great capacity to inspire seasoned professionals."

Her passion for undergraduate research is based upon her own experience. Cerveny said she was fortunate to take a geoscience laboratory class during her second year with a professor who engaged her in a research project that taught her about scanning electron microscopes, sample preparation, mineralogy, rock decay and geomorphic processes.

"I learned that packrat middens cut on a wet saw are terribly smelly—defining a career with rocks rather than organics, how lichen growth can be used for climate research and how the material found in rock fractures comes primarily from aeolian fallout rather than the decaying rock," she said.

The project resulted in a publication crediting her name and her work. The publication meant she stayed in contact with the geoscience professor and advanced her education.

Another MCC professor, Nicola Plowes, is a first-generation American and the first in her family to navigate the U.S. higher education system. She now teaches life sciences at MCC. Plowes writes about climate in the classroom.

"Faculty members need to be good examples...being kind and approachable, even if experiencing frustrations outside of class, demonstrates emotional control and professionalism," she said. "As teachers, we are the role models for the students' new climate."

She believes in the importance of equipping students to succeed in the many climates that they will encounter in college, in the workplace and in life.

"High school expectations and differences in cultural norms can result in a kind of culture shock for students entering the new climate of college," Plowes said.

MCC alumna Esther Goldthwaite, who was homeschooled through high school, agrees with the need for a supportive college environment and the benefits of mentorship and undergraduate research.

"This experience with mentorship taught me valuable lessons," Goldthwaite said. "Mentors are people who are there when you need extra help and support. They are people who share words of comfort and belief when you are struggling to feel that you can accomplish the tasks before you. Mentorship is not some grand concept or idea. We have the most impact when we are simply there for the people who need us. "

For Cerveny, the results she has witnessed from encouraging undergraduate research at the community college level are worth the extra effort. Often her first- and second-year students contribute publications to advance the discipline.

"The positive outcomes of the projects are multiple and reap many rewards for instructor, student, and institution," Cerveny said.

Both MCC professors' research was recently recognized:

Nicola Plowes is co-author of an ant research article, Mechanistic Models of Conflict between Ant Colonies and Their Consequences for Territory Scaling, appearing in the August edition of The American Naturalist/University of Chicago Press Journals

Niccole Cerveny, Ph.D., participated in a U.S. Agency for International Development (USAID) Project in the Wadi Rum Protected Area, one of the major tourist attractions in Jordan. Researchersused the Rock Art Stability Index (RASI), which Cerveny created for her doctoral thesis.

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About Council on Undergraduate Research

Founded in 1978, the nonprofit Council on Undergraduate Research (CUR) and its affiliated colleges, universities, and individuals share a focus on providing undergraduate research opportunities for faculty and students at all institutions serving undergraduate students. CUR believes that faculty members enhance their teaching and contribution to society by remaining active in research and by involving undergraduates in research, and students succeed in their studies and professional advancement through participation in undergraduate research. Visit http://www.cur.org/about_cur/contact/.

Mesa Community Collegeis nationally recognized for service-learning, career and technical programs, civic engagement and innovative approaches to higher education. The college serves as a resource for career readiness, transfer education, workforce development and lifelong learning. Host to more than 30,000 students annually, MCC offers more than 150 degree and certificate programs at its two campuses and additional locations. MCC is an emerging Hispanic Serving Institution with a diverse student body that enriches the learning experience. Renowned faculty are dedicated to student success, providing the education and training that empowers MCC students to compete locally and nationally. MCC, located in the East Valley of Phoenix, Arizona, is one of 10 colleges comprising the Maricopa County Community College District. For additional information visit mesacc.edu.

Mesa Community College is accredited by the Higher Learning Commission (HLC) of the North Central Association (NCA) http://www.ncahlc.org.

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