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## MCC GREENHOUSE OFFERS RARE LEARNING OPPORTUNITIES FOR SUSTAINABLE HORTICULTURE/AGRICULTURE STUDENTS

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DAWN ZIMMER | MESA COMMUNITY COLLEGE



MESA, Arizona – June 22, 2022 – Completed at the height of the pandemic in early 2020, the renovated greenhouse at Mesa Community

College provides a rare learning environment for landscape horticulture and sustainable agriculture students.

Located on the southeast side of MCC's Southern and Dobson Campus, the 5,400-square-foot greenhouse was built with funding from Proposition 301, an Arizona initiative providing annual funding for education. "The goal of the new greenhouse is to provide students with a high-tech, industry standard learning facility to prepare them for career opportunities in greenhouse management and urban agriculture," says Peter Conden, MCC agriculture/landscape horticulture faculty member and greenhouse design and management instructor.

Providing a wealth of learning experiences for students, the greenhouse is outfitted with a state-of-the-art computerized environmental control system and is used for plant propagation as well as aquaponic and hydroponic vegetable production. "Most classes in the sustainable agriculture or landscape horticulture Associate of Applied Science degree or Certificate of Completion use the greenhouse as a hands-on teaching laboratory," Conden adds.



The greenhouse compliments the programs developed by the MCC Center for Urban Agriculture to promote and advocate for education, beautification of the global environment and public awareness for healthy eating and living through sustainable urban agriculture, aquaponics and local food production.

MCC was also awarded \$119,000 from a USDA grant to expand student interest in agricultural research. The three-year USDA college grant was received in 2018 and is a collaboration with Arizona State University and the U.S. Arid Lands Agricultural Research Center (ALARC) based in the city of Maricopa. MCC's award was part of the larger grant awarded to the partners. Because ASU and MCC transitioned to virtual learning during the Covid-19 pandemic, the grant was extended for a fourth year.

One of the programs that the USDA funds is an ASU introduction to agriculture research class open to MCC and ASU students. The course reviews the basics of developing a research project and writing research proposals. Grant funds also support internships for MCC and ASU students providing opportunities to conduct research in the MCC greenhouse, ASU and ALARC campuses. Eight interns have benefitted from this experience which was introduced during the Spring 2019 semester.



Grant money also supported the development of an indoor vertical farm at MCC and a new Hydroponic Production course (AGS217). This course directly aligns with programs at the University of Arizona and is open for registration now for the Fall 2023 semester.

In addition to the vertical farm, students in Introduction to Hydroponics and Controlled Environment Agriculture (AGS217) will learn to grow hydroponic tomatoes and other vegetables in the greenhouse. Vegetables grown in the greenhouse are sold at the MCC Grab and Go farmer's market located at the Southern and Dobson Campus with proceeds funneling back into the program to purchase seeds and fertilizer, adding to the program's sustainability. Food that is not sold is donated to local food banks.

The replacement of the previously existing greenhouse with the new one is another lesson in sustainability. Conden offered to donate the old greenhouse to Diné College, located in Northern Arizona with campuses and microsites across the Navajo Nation. He was thrilled upon learning

that Benita Litson, director of the Diné land grant office, was interested. Two weeks after obtaining permission from administration to donate the structure, workers and students from Diné College traveled to Mesa, dismantled the greenhouse and took it away on trailers.

“Before dismantling, MCC greenhouse management students used the old plastic covering, which was in good condition, to replace the worn-out covering on the greenhouse used by the MCC biology program,” Conden points out. “This saved the Life Science Department thousands of dollars.”

Learn more about the MCC landscape horticulture/sustainable agriculture programs and the Center for Urban Agriculture at [mesacc.edu](http://mesacc.edu).

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