

SUMMARY

UW-Milwaukee's School of Architecture and Urban Planning (SARUP) and College of Engineering & Applied Science (CEAS) hosted the first of its kind NAF Future Ready Scholar Program in Summer 2022. Partnering with Milwaukee Public Schools (MPS), Milwaukee Area Technical College (MATC), All Hands Boatworks, and Journey House, the program was the first to employ a design-build approach with a community client, resulting in shade pavilions and renewable power for a community garden site.

The program was structured in two cohorts: a one-week engineering group and a four-week architecture group. Experienced faculty and staff from UWM and partners used a curriculum that engaged both cohorts in STEAM, including project-based learning, collaboration, exposure to diverse careers, hands-on practice of new skills, and team-building activities. Six college counselors joined the instructional team in assisting with project work, leading group exercises and escorting students to program locations.

This program furthers the goals of M³, a partnership between the Milwaukee Public Schools, MATC and UWM to foster collaboration and coordination to transform the future of Milwaukee through education.



HIGHLIGHTS

The two cohorts learned about the central project together, touring the site to gather information and meeting community members to learn about the needs of the project's end users. The scholars experienced life on a college campus, including a stay in the residence halls, campus tours, and interactions with college students and university professors and staff.

Engineering scholars experimented with circuits and assembled solar power stations using kits on loan from industry partner, Creation Technologies. After quality control checks and troubleshooting, one power station was selected for deployment and customized to suit the needs of the Metcalfe Park community garden.

Architecture scholars prepared for full-scale building by practicing practiced their design skills through hands-on activities such as creating models and building structures. Students raised supports, installed the roof and rain collecting gutter, fabricated a rain barrel enclosure and built-in folding table and installed versatile seating of their own design.

Two park structures with fold-up tables and benches were completed to provide shade, a gathering place and water collection for the Metcalfe Park neighborhood garden. The solar panel chosen by the scholars was installed. The remaining components of the solar power station were completed and will be installed by a UWM student organization during the fall semester.

PARTNERS



SCHOLARS

The program enrolled a diverse group of 28 high school students; 11 of these took part in the architecture track and 17 in the engineering track. The participants included 10 rising seniors, 17 juniors, and 1 sophomore from 9 different high schools.

Most scholars were a part of NAF academies, with the large percentage within the Academy of Engineering and Academy of Information Technology. Seven scholars participated in partner activities, 3 scholars from Journey House, 2 from Metcalfe Park and 2 from both.

