



Statement of Programmatic Innovation and/or Enhancement

MoSTEMWINS Strategy: Accelerate Entry into Career Ready Programs

UP Program

A. Refine Assessment

The ability to offer Brush Up workshops has been a foundational and instrumental part of our efforts to accelerate students to successful completion of their academic goals. Due to the nature of placement tests and typically a lack of preparation, students often do not test into the college math course that correlates to their mathematic ability. After an intensive week of review many students are able to retake the placement test and test into a higher course. When students successfully test into a higher level, traditional barriers such as extra cost, extra time commitment, and lack of initial academic success are removed and chances for retention and completion are increased. Students are able to reach their college-level math course earlier helping to keep them more engaged along the way.

As many colleges deal with low success of developmental math education and even, perhaps whether developmental education itself is a student barrier, the UP Program of our MoSTEMWINS initiative has allowed us to analyze our developmental math program, pilot new approaches, redesign assessment methods, provide student remediation as appropriate, offer enhanced student supports efforts, and implement (and even begin to scale) a reformatted structure that benefits students and ensures the necessary rigor.

B. Transform developmental education

The MoSTEMWINS creation of Team Up (corequisite courses) served as a foundation for a complete restructuring of the developmental education department at NCMC. Through MoSTEMWINS, students taking co-requisite courses, are able to take two of their math classes simultaneously. This allows students the ability to take their college-level math course a semester earlier. Our campus has subsequently broadened what the grant initiated and, in the fall 2017 semester, all developmental education courses will be offered in the corequisite format – math and English courses. We also have plans to develop and implement an online version of a corequisite math course, further adding to student options. The restructuring of the developmental education program provides the opportunity for students to accelerate through their degree required math sequence.

C. Add support services to meet the needs of participants

Our MoSTEMWINS Recruitment and Retention Specialist is an invaluable resource to participants. The intensive student support throughout the students' grant affiliation (and beyond in most cases) – recruiting, registering, advising, mentoring, encouragement, and frequent contact) – offers a different sort of college experience perhaps not often found in other programs. The Team Up program instructor was also charged to be available and provide enhanced assistance as possible. The Specialist also designed and led workshops on topics such as career planning, soft skills, and college success tips.

The newly developed college seminar course (Skill-Up) has provided our students a seamless transition into college. Both traditional and non-traditional students were able to learn about all the resources available on campus, as well as, the different departments to help them throughout their college career. Students were also taught and required to practice soft skills that will prove beneficial in college, as well as, in any career path they choose. This course has been adapted and scaled to become a requirement in one AA degree and a possibility in other degrees.

Specifically related to our Team Up (corequisite courses), MoSTEMWINS allowed us to pilot the offer participants free, 24-hour, online math tutoring. The initial thought was that while our campus has free in-person, on campus tutoring available to our students, the hours of operation are not necessarily suitable to all students, especially those that are employed or that have other daytime responsibilities. Online tutoring, provided through NetTutor, provided an avenue for students to seek extra help for their math courses according to their schedule. We discovered that this was not an attractive option for participants and most continued to seek in-person tutoring assistance.

MoSTEMWINS Strategy: Create Clear Pathways to STEM Careers

CPT Program

A. Expand access to and/or develop new stacked and latticed credentials in programs that meet employer needs

Recognizing previous employer interest in the MSSC CPT program, we utilized MoSTEMWINS to offer on-site industry CPT courses, enhanced our existing CPT courses by making curriculum adjustments/additions based on company needs as well as addition of specific content as requested, and provided generally non-traditional options such as flexible course scheduling, credit for prior learning, and customized delivery methods including not-for-credit options. In other words, we made a targeted effort to be responsive to industry training needs and adjusted our courses to their work schedules and locations while providing college credit, industry credentials, and certificate opportunities to their employees/our students.

Employer demand from area manufacturers for on-site delivery has been strong during MoSTEMWINs and student success has been high. This approach appears to be a convenient delivery method to traditional and non-traditional students, the courses offer industry credentials along the way toward the college certificate, and employers are gaining more skilled workers as a result of this programming.

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