

ABSTRACT
STEM GPS “Graduation Pathway to Success”

Bergen Community College’s HSI STEM proposal has been designed to prepare STEM students to fulfill the urgent and growing need for STEM professionals in a competitive and global workplace. This application has been constructed to address weaknesses in the STEM programs at Bergen Community College (BCC) that contribute to low enrollment, graduation, and transfer rates among its STEM and STEM Education students. The project has three goals:

- (1) To increase the recruitment and persistence of STEM and STEM Education students;*
- (2) To improve the graduation and transfer rates for students enrolled in STEM and STEM Education programs; and*
- (3) To enable more data-based decision making that informs and improves student outcomes, program development and articulation.*

To achieve these goals, the STEM GPS Project will create a STEM Learning Community (SLC) that will support BCC students in identifying pathways as they pursue their STEM academic and career goals. It will create programs, relationships and programs that promote interaction, connection, and encouragement of STEM students at BCC. STEM GPS will employ three strategies to create the SLC:

Strategy One: Improving Academic Programs and Establishing Articulation Agreements will revise and/or create new STEM and STEM Education courses and programs that promote active learning. Course sequences in each STEM program will be analyzed and better aligned. BCC will develop articulation agreements with New Jersey Institute of Technology, which will serve as a model for other 4-year institutions.

Strategy Two: Enhancing Student Support Services and Data Collection will provide academic, career and transfer student support services that are critical to the SLC. This will include professional tutors; success preparation courses; faculty mentor-student relationships; STEM career counseling; and offering STEM internships. This strategy will also utilize a STEM database – the Student Early Alert System – which will be used to inform and improve student outcomes, program development and articulation.

Strategy Three: Developing STEM Faculty and Facilities will establish the foundation for the SLC – STEM Cadre and the Hispanic Bilingual Instruction Fellow in STEM (HISTEM). STEM Cadre will organize the SLC and lead the transformation of STEM instruction to an inquiry-based learning approach. The HISTEM will coordinate tutoring and other support services. This strategy will also create the spaces for faculty and peer interaction, namely the STEM Learning Center and Center for Inquiry-Based Learning.

By the completion of the project, BCC will realize annual increases of 20% in enrollment and 50% in graduation and transfer rates.

Bergen Community College requests \$3,781,639 to support the STEM GPS “Graduation Pathway to Success” Project.