

PROJECT ABSTRACT: *ExpandED STEM Options*

ExpandED Schools is seeking funding for an Early Phase Grant under Absolute Priorities 1 (Demonstrates a Rationale) and 3 (Field-Initiated Innovations—Promoting STEM Education, with a Particular Focus on Computer Science) and Invitational Priority 1 (Personalized Learning). The proposed project, *ExpandED STEM Options* will advance national STEM education interests by demonstrating a sustainable, replicable strategy featuring: 1) credit-bearing apprenticeships in STEM fields; 2) student-driven, project-based learning and 3) teaching internships for high school students designed to equip them with the STEM skills and sustained interest to compete for and succeed in 21st century jobs.

ExpandED STEM Options will serve 320 students in grades 10-12 from 20 schools in NYC's highest-need districts (based on students at risk of educational failure, with a focus on students living in poverty). Students participate in 60-hour STEM-focused apprenticeships which offer applied, skills-based training in areas of interest (e.g., computer science) and involve student-driven, project-based learning activities. Upon completion, students participate in 150-hour paid summer internships teaching their newfound content and skills to younger youth.

The objective is to provide high school students with STEM-focused work-based learning experiences beyond traditional classrooms that result in the following outcomes: (1) increased interest and engagement in STEM and knowledge of STEM careers, (2) development of critical workplace readiness competencies, (3) increased engagement and motivation to stay in school and (4) increased preparedness for college and career, with a focus on STEM pathways.

The project will engage apprenticeship partners: Beam Center, NY Hall of Science, NYU Tandon School of Engineering, Mentoring in Medicine, City Parks Foundation, and Educational Video Center and an external evaluator, NYU's Research Alliance for NYC Schools.