

**National Science Foundation (NSF) Advanced Technology Education (ATE)
Increasing Technician Preparedness in the Built Environment (1600455)
Project Summary**

Total: \$705,909

Project Period: 6-1-2016 to 5-31-2019

PI: Charlie Setterfield (Sinclair)

Co-PIs: Dean Bortz (CSCC Lead), Margaret Owens



This architecture technician education proposal will develop and disseminate new curricular modules for undergraduate students enrolled in built environment educational programs and provide professional development for community college faculty and staff. The goal of the proposed project is to provide community college students, including underrepresented populations, an opportunity to master competencies in demand by employers and increase graduate preparedness for employment in built environment jobs. The long-term outcome will be a more diversified workforce that better meets the needs of built environment professions.

Partners include: Columbus State Community College (Columbus, OH); Montgomery College (Rockville, MD); the Coalition of Community College Architecture Programs (a coalition representing 136 colleges); and the Construction Specifications Institute (a national, non-profit industry professional association in Alexandria, Virginia). The NSF Building Efficiency for a Sustainable Tomorrow (BEST) Center will serve as a dissemination partner and the Institute for Women in Trades, Technology & Science will provide training on Women in STEM recruitment, persistence, and success strategies.

There is currently no uniform national certification system for two-year architectural and other degree programs educating technicians to work in the built environment, resulting in inconsistencies among graduate skill levels. The project will transform built environment associate degree programs by embedding STEM and industry standards from the Construction Document Technologist (CDT) certificate into two-year education programs. The CDT is a credential offered through the non-profit Construction Specifications Institute, recognized by employers as a respected entry-level credential and required by many employers. The CDT credential was chosen because it addresses significant gaps in undergraduate education. Fall workshop for high school faculty to understand emerging trends in Alternative Energy Automotive Technology education.

The project has three major components:

1. With the assistance of employers and subject matter experts, the Construction Specifications Institute (CSI) will update and validate the competencies of CDT credential holders, sharing these results with the project development team to assure alignment of college curriculum with industry expectations.
2. Forty community college faculty members nationwide will embed the updated and aligned CDT certification curriculum and exam into two-year architectural, construction, and building sciences programs to address STEM skill and knowledge gaps.
3. Faculty participants will conduct activities to increase the number of underrepresented individuals enrolled in community college built environment education programs.