

1125-97-2211 **Catherine Paolucci*** (paoluccic@gmail.com) and **Evan Smith** (mr.smith@fmhsnyc.org).
Changing past perceptions and fostering future STEM ambitions through secondary and higher education partnerships.

This presentation will share the exciting outcomes of an innovative partnership aimed at giving secondary students an opportunity to learn mathematics through the use of computer programming and 3-D printing. It will give the background of a partnership formed between mathematics faculty in a New York State university and a New York City public high school.

The project, funded by the SUNY Teacher and Leader Network, involved collaborative development of a short-course curriculum for high school students with a wide range of mathematical achievement levels. Students in the course learned, applied and reinforced algebraic and geometric concepts through the use of OpenSCAD programming software to design and print 3-D objects. In addition to notable outcomes involving mathematical learning and dispositions, the collaboratively developed and delivered course also impacted students' attitudes and ambitions regarding further study of mathematics and computer programming. (Received September 19, 2016)