

**Augusta University**  
**Department Of Mathematics**  
**Mathematics Education Seminar**

**LEGO Robotics: A New Method for Teaching  
Mathematics**

**Dr. Shelli Casler-Failing**  
**Georgia Southern University**

Date: January 24

Time: 2:00-3:00 PM

Place: Allgood Hall E259

**Abstract**

This presentation will report on the findings of a multiple case study conducted to investigate how LEGO robotics instruction incorporated into a middle grades mathematics methods course could inform pre-service teachers' technological pedagogical content knowledge. The qualitative data analysis revealed that when instruction on LEGO robotics technology is integrated into semester long mathematics methods courses, PSTs are able to improve their TPACK knowledge in regard to the robotics. Overall, the findings suggest instruction of educational technology tools should be presented over a longer duration of time, and in depth, to better support the development of PSTs' TPACK.