

School of Earth and Environmental Sciences Fall 2026 Colloquium Series

Wednesday, Oct 28, 2026
12:15 PM -1:30 PM
Science Building C-207

Dr. Salvatore Garofalo, Assistant Professor
Dr. Stephen Farenga, Professor and Program Director
The Science and Technology Education Program
Queens College



This presentation examines modern research, teaching, and learning strategies in science and technology education. Grounded in cognitive frameworks—specifically **spatial abilities, embodied cognition, and epistemic cognition**—their research evaluates how physical and digital model building, such as three-dimensional science constructs, enhances conceptual understanding. It further highlights practical integrations of emerging educational technologies, including **drones** for spatial reasoning, **air quality monitoring sensors** for community-based citizen science, **generative AI tools**, and **augmented and virtual reality** environments. Backed by National Science Foundation (NSF), NASA, and CUNY interdisciplinary grants, the presentation demonstrates how grant funding empowers future science educators through tech-enhanced curricula, field research, and pedagogical strategies designed to combat anti-science misinformation through scientific literacy and storytelling.