

**Supporting Transfer, Growing Programs, and Creating Communities at 2YC Colleges:  
A legacy of collaboration between SCCC and Stony Brook University**

Sean Tvelia  
Department of Physical Sciences  
Suffolk County Community College

According to the American Geosciences Institute's 2018 Status of Recent Geoscience Graduates, 45% of BA/BS, 31% of MA/MS and 15% of PhD degree holders had attended a two-year college. Given this, community colleges – which account for over 40% of the nation's undergraduate population (AACC, 2018) – represent a crucial pipeline to the geosciences workforce. However, several barriers impact the recruitment, retention, and graduation of community college geosciences majors, including academic preparedness, economic standing, sense of support, and knowledge of career opportunities.

At Suffolk County Community College, guided by the work of Hosch & Bowie, 2010; Maltese & Tai, 2011; and O'Connell & Holmes, 2011 that documented the factors influencing student willingness to major and persist in the sciences, faculty have developed a geoscience program designed to reach and teach the whole student.

Beginning at the course level faculty have adopted pedagogical practices to enhance students' academic performance and metacognitive abilities as well as their understanding of regional transfer and career opportunities.

At programmatic levels faculty have created educational resources aimed at developing students' science identity and educational and social networks. Through collaborations with Stony Brook University's Geoscience program and SOMAS, 2YC students across the nation participated in professional development opportunities where they learned new skills and were able to meet and work with university faculty, as well as their peers at other institutions.

These collaborations have led to increasing transfer rates of 2YC students and greater success rates at the 2YC and 4YC levels. Overall, this holistic approach to program development has increased participation in geoscience courses and created a student science community at the 2YC similar to those that exist at four-year institutions.