



The VISION of Seminole High School's Sustainable Engineering Academy (SEA) is to develop specialized and innovative skills through exploration, critical thinking, and problem solving. SEA is rooted in the interdisciplinary application and interaction of all STEAM fields and includes different areas of CTAE and the Arts: Architectural, Environmental, Electrical, and Civil Engineering Technologies.

SEA fosters meaningful relationships between students and the community through relevant academic and extracurricular activities. The program provides access to diverse educational offerings, internships and evaluations. SEA prepares students for engineering careers and for rigorous academic programs at the top engineering universities. Students participate in hands-on projects to design and create real-life prototypes. They also have opportunities to compete in events and robotics competitions at the state, national and world levels. Students learn to use engineering software and can earn certifications.

- Participation in SEA will allow students to:
- Address specific design challenges
  - Use a variety of technologies to enhance their understanding of STEAM fields.
  - Practice communication and leadership skills.
  - Explore STEAM careers and their associated pathways.
  - Provide avenues for students to use interdisciplinary skills to accomplish learning goals



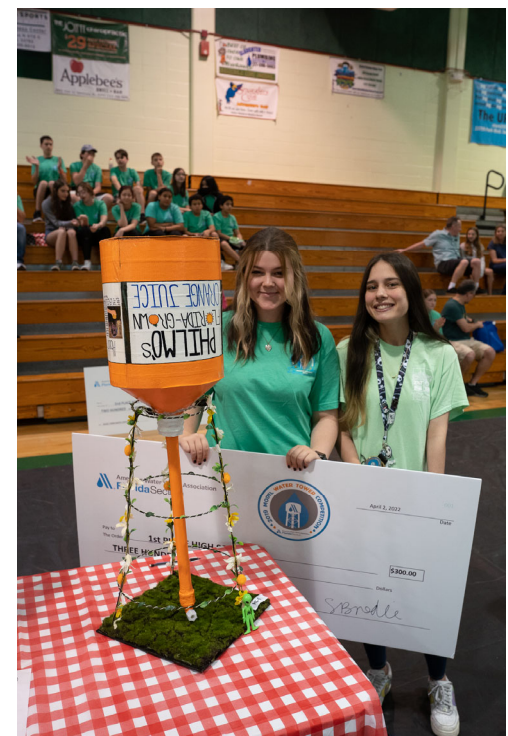
### Program Partners:



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## The Sustainable Engineering Academy



**Providing students with the most comprehensive Environmental Management, Water Sector, and Sustainable Engineering Technologies Education available.**



## OUR MISSION

In support of Seminole High School's Mission Statement, The Sustainable Engineering Academy's Water Resource Sustainability Program (WRS) brings together faculty and staff to foster and build meaningful relationships with students and the community through relevant academic and extracurricular activities. It is a place where students grow intellectually and lead successful, fulfilling lives through rigorous training and modeling of skills within these fields that contribute to their future success. The program will provide every student within Seminole High School access to diverse STEAM educational offerings, internships, evaluations, and a positive educational experience that allows them to put knowledge into action. All students will be able to interact in meaningful ways that foster success leading to post-secondary and career readiness.



## ACADEMICS

Seminole High School offers the only high school based STEAM Program in Pinellas County Schools. It is part of the PCS Career and Technical Education (CTAE) Programs. The umbrella of learning provides opportunities in Water Sector and Sustainable Engineering Technologies. Students may graduate with the following 12 licenses/certifications:

- Class "C" and "D" Drinking Water Operator and/or Wastewater Operator Licenses
- ESRI ArcGIS Desktop Entry Certification
- 14 CFR 107 Pilot's Certificate (License)
- USI Unmanned Drone Safety Level 1 Certification
- Agricultural Unmanned Aircraft Systems Specialist
- Aquaculture Technician Certification
- Ecology Conservation and Management Certification
- AutoCAD Desktop Certification
- Robotics Education & Competition Foundation - RECF



## SEA COLLEGE AND CAREER PREP!

- Becoming a drinking water or wastewater operator will allow you to enter the workforce right after graduation. The occupation pays \$40,000 per year as an average salary for beginning licensed operators.
- Drone pilots are needed by multiple industries. With 60 hours of flight time, students can independently contract services as a pilot.
- College readiness is enhanced through preparing students with certification in engineering technologies, experimental techniques, and hands-on training.
- Student's in their senior year complete and compete with capstone projects in an engineering discipline. !



**21st Century Learning**  
Student Centered Community  
Participatory Learning.