Environmental Technology

Environmental Technology is a career-oriented program that utilizes the principles of science, engineering, and computer technology to protect and enhance the environment and human health. It falls within the Career and Technical Education Program (CTE) and draws curriculum from CTE programs in agriculture, natural resource systems, plant systems as well as from the National Council of Geographic Education. Environmental Technology engages students in hands-on experiences and fieldwork where they act as environmental professionals, completing projects and solving problems.

Program Content and Skills

- Natural resources management – forestry practices, soil analysis, and watershed best management practices
- Sustainable horticulture – plant propagation, plant identification, and plant growth and maintenance
- Physical geography – topographic map interpretation, compass orientation, and evaluating environmental issues
- Geographic Information Systems (GIS) – mapping software certification, spatial analysis, satellite image interpretation, and cartographic layout presentations
- Environmental design – use of scales, site analysis and program development, graphic presentation, and site design applications
- Environmental engineering – surveying techniques, stormwater facility design, water purification and wastewater treatment, and pollution prevention and waste management
- Precision agriculture – geographic positioning systems, drone technology application, and agricultural best management practices

- Environmental sampling and monitoring – stream analysis of chemical, physical and biological indicators, ecosystem health assessments, and aquaculture systems maintenance
- Oral and written communication – prepare reports and presentations using computer software (Word, Excel, PowerPoint, and ArcGIS)

Internships:

Students may choose to participate in an internship in their senior year. Some internship site options include The Institute of Marine and Environmental Technology, the National Geographic Society, Baltimore County Department of Environmental Protection and Sustainability, Baltimore Gas and Electric, KCI Technologies, and Irvine Nature Center.

Certifications:

- ArcGIS Pro Foundation from the Environmental Systems Research Institute (ESRI)
- Soil Erosion and Sediment Control Certification from the Maryland Department of the Environment

Articulation with CCBC:

Students may have the opportunity to earn up to 3 articulated credits for GIS Applications.

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