Natural Resources and Agricultural Sciences Magnet Program

Program Philosophy

Special points of interest:
- **Unique Curriculum**
- **Unique Partnerships**
- **Unique Campus Features**

Mission of NRAS:

To provide students with essential knowledge, experiences, and opportunities for pursuing academic, vocational, and recreational futures in the management of natural resources and agricultural sciences.

To develop future leaders, business owners, and advocates to support the growth of Maryland industries related to Natural Resources and Agricultural Sciences.

Students working on a botany lab at Longwood Gardens

Vulcan Quarry Wetlands Project

Program Design:

The Natural Resources and Agricultural Sciences Magnet (NRAS) is composed of four clusters focusing on Large Animal Sciences, Small Animal Sciences, Plant Sciences, and Natural Resources Sciences.

Programs provide students with the opportunity to experience challenging course work and experience science and technology with emphasis on career development and real world applications.

The Harford County Agricultural Economic Advisory Board, The University of Maryland, Harford Community College, and Harford County Public Schools along with local industry have partnered to develop a program where each cluster will provide students with the quality background knowledge and skills necessary for continued education or to gain entry into their work based field of choice.

Unique Opportunities:

- **Campus Features**: Wetland, Pond, Stream, Pastures, Barns, Forest, and Arboretum (Over 40 Native Species Featured)

- **Unique Curriculum:** CAERT (Center for Agricultural and Environmental Research and Training) has created a unique learning library to be utilized by our program. STARS GIS and AGIS– provided a unique chance to earn Geographical Information System Certification from NASA and the US Dept. of Labor

- **Field Experiences:** Eden Mill, Falling Branch, Vulcan Materials, Indian Steps Museum and Rocks State Park provide the opportunity for research, and exploration during a class period.

Large Animal Science

Core Courses:

- **Animal Management**
- **Comparative Anatomy & Physiology of Farm Animals**

Small Animal Science/ Vet Tech

Core Courses:

- **Animal Management and Vet Tech**
- **Comparative Anatomy & Physiology Companion Animals**

Plant Sciences

Core Courses:

- **Plant Propagation and Production**
- **Edible, Environmental, and Ornamental Plants**

Natural Resources Science

Core Courses:

- **Wildlife Management**
- **Wetlands and Aquatics**

Elective Courses related to NRAS

NHHS Offers <u>HONORS</u> and <u>18 AP COURSES</u> and has weighted grading

- **AP Biology, AP Chemistry, AP Environmental Science, AP Physics**
- **AP Calculus, AP Calculus 2, AP Statistics, Botany, Zoology, Marine Science, Chesapeake Bay Studies, Earth Space Science**
- **Equine Science/EAGALA, Small Animal Science, GIS (digital mapping)**

Weighted Grading for NRAS Classes

Mr. Greg Murrell: Program Specialist