CHESAPEAKE ECOLOGY & SUSTAINABLE BUILDING DESIGN

**Location**: Phillip Merrill Center, Annapolis, MD

**Description**: Course participants investigate the Phillip Merrill Center, a Platinum LEED designed building situated between the main stem of the Chesapeake Bay and Black Walnut creek in Annapolis, Maryland.

Through the Merrill Center, students learn sustainable building design, renewable energy concepts, and conservation land use practices. On the Merrill Center’s campus, students will explore a brackish marsh, gather biotic samples to assess biodiversity; sample abiotic factors such as dissolved oxygen, nitrogen, phosphates, and salinity.

Groups of 30 to 60 participants may request CBF’s education workboat *Marguerite*, to extend field investigations into the open Bay.

**Course Concepts**: The Chesapeake Ecology and Sustainable Building Design course satisfies the following AP Environmental Science topics:

- **I. Earth System and Resources**, C. Global Water Resources
- **II. The Living World, Topics** A-E, Ecosystem Structure, Energy Flow, Ecosystem Diversity, Natural Ecosystem Change, Natural Biogeochemical Cycles
- **IV. Land and Water Use**, D, 4,5 – Land conservation options, sustainable land-use strategies
- **V. Energy Use & Consumption**, G. – Renewable Energy
- **VI. Pollution**, A, 3, 4. – Pollution Types: Water pollution, Solid waste
- **VII. Global Change**, C. – Loss of Biodiversity

**Program Capacity**: One or two groups of up to 30 (including chaperones). Groups of 30 to 60 participants may request CBF’s education workboat *Marguerite*, in order to extend field investigations into the open Bay. Appropriate for high school and college-level students.